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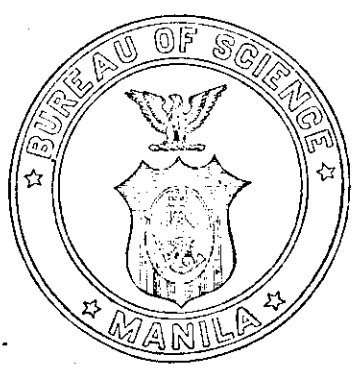

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THE PHILIPPINE
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A COLLECTION OF TERMITES FROM THE PHILIPPINE ISLANDS

By MASAMITSU OSHIMA
(Institute of Science, Government of Formosa)

TWO PLATES

The termite fauna of the Philippine Islands is supposed to be an exceedingly rich one. However, it has been but little studied. In 1914 Professor C. F. Baker, of the University of the Philippines, made a careful collection of termites at Los Baños, Laguna Province, Luzon, and very kindly sent the specimens to me for examination. This collection contained representatives of six species, which were described by me as new.[1]

Recently I received lots of Philippine termites from Mr. R. C. McGregor, of the Bureau of Science, Manila, which were mainly collected by him at Sarai, near Paete, Laguna Province, Luzon. After a close comparison of these two collections, I have detected four new species and two species not previously recorded from the Philippine Islands, namely:

Eutermes (*Eutermes*) *gracilis* sp. nov.
Eutermes (*Eutermes*) *manilensis* sp. nov.
Eutermes (*Hospitalitermes*) *hospitalis* Haviland.
Eutermes (*Hospitalitermes*) *saraiensis* sp. nov.
Eutermes (*Ceylonitermes*) *mcgregori* sp. nov.
Rhinotermes (*Schedorhinotermes*) *longirostris* (Brauer).

In the present paper a record of the termites of the latter collection is given. The species of Baker's collection that are not included in McGregor's material are given for the sake of completeness.

My thanks are due Mr. McGregor, who has forwarded the interesting specimens to me.

[1] *Ann. Zool. Jap.* (1914), 8.

MESOTERMITIDÆ

COPTOTERMITINÆ

Genus COPTOTERMES Wasmann

Coptotermes flavicephalus Oshima. Plate II, fig. 8.

Coptotermes flavicephalus OSHIMA, Ann. Zool. Jap. (1914), 8, 558.

Imago.—Unknown.

Soldier.—Head pale yellow; mandibles brown; abdomen straw-colored. Head sparingly pilose; abdominal tergites densely provided with hairs.

Head suborbicular, broad, and flattened; fontanelle directed forward; basal portion of clypeus short; labrum tongue-shaped, with pointed tip, scarcely reaching to middle of mandibles; mandibles saber-shaped, with strongly incurved tip; antennæ 15- or 16-jointed, 3d joint nearly as long as 2d; pronotum broad, anterior and posterior borders bilobed.

	Mm.
Length of body	6.00–6.50
Length of head with mandible	2.75
Length of head without mandible	1.63
Width of head	1.53
Width of pronotum	1.03–1.09
Length of pronotum	0.63

Worker.—Head yellowish white; abdomen whitish. Head sparingly pilose; abdominal tergites moderately provided with subequal hairs.

Antennæ 15-jointed, 3d joint shorter than 2d; anterior border of pronotum bilobed; posterior border straight.

	Mm.
Length of body	5.00
Width of head	1.44
Width of pronotum	0.78

Habitat.—LUZON, Los Baños, Laguna (*Baker*).

RHINOTERMITINÆ

Genus RHINOTERMES Hagen

Rhinotermes (Schedorhinotermes) longirostris (Brauer). Plate II, figs. 9 and 10.

Imago.—Unknown.

Soldier (*the larger form*).—Head yellow; mandibles brown; abdomen, antennæ, and legs straw-colored. Head sparingly provided with spiny hairs; abdominal tergites moderately pilose.

Head quadrate, sides slightly converging anteriorly, posterior border rounded; fontanelle distinct, directed upward, situated

between antennal fossæ; from the fontanelle runs a shallow groove, reaching to apex of labrum, slightly widening anteriorly; clypeus grooved along the median line, boundary between apical and basal portions indistinct; labrum tongue-shaped, longer than broad, tip bilobed and anteriorly provided with a cluster of short hairs, reaching beyond the middle of mandible; mandibles stout, with strongly incurved tip, the left provided with two teeth, the right with one tooth; antennæ 16-jointed, 2d joint shorter than 3d, 4th joint nearly half as long as 3d; pronotum flat, anterior border convex, posterior border weakly emarginate at middle; mesonotum as broad as pronotum; metanotum broader and shorter than the former.

	Mm.
Length of body	4.50
Length of head with mandible	2.00
Length of head without mandible	1.37
Width of head	1.34
Width of pronotum	0.75
Length of pronotum	0.50

Soldier (the smaller form).—Head yellow; mandibles light brown; abdomen pale yellow; antennæ and legs straw-colored. Head very sparingly pilose; abdominal tergites with a series of spiny hairs along the posterior border.

Head pear-shaped, sides converging anteriorly; fontanelle distinct, directed upward, with a shallow groove running from it to tip of labrum; clypeus tongue-shaped, swollen on both sides of the median groove; labrum elongate, rectangular; tip bilobed, reaching beyond the tip of mandible, its outer border densely provided with minute hairs; mandibles slender, saber-shaped, with incurved tip, the left provided with two teeth, the right with one tooth; antennæ 15-jointed, 2d joint nearly as long as 4th and longer than 3d, 3d joint the shortest and narrowest; pronotum minute, anterior border convex, posterior border nearly straight; mesonotum slightly broader than pronotum; metanotum much broader than the former.

	Mm.
Length of body	3.50
Length of head with mandible	1.37
Length of head without mandible	0.81
Width of head	0.72
Width of pronotum	0.50
Length of pronotum	0.31

Worker.—Head yellowish white; abdomen whitish. Head and abdominal tergites densely pilose.

Head quadrate, with rounded posterior border; clypeus mark-

edly swollen; antennæ 16-jointed, 2d joint longer than 3d, 4th joint nearly half as long as 3d; pronotum semilunar, anterior border elevated.

	Mm.
Length of body	4.20
Width of head	1.25
Width of pronotum	0.59

Habitat.—LUZON, Laguna, Sarai, near Paete (*McGregor*), June, 1915.

METATERMITIDÆ

Genus TERMES (L.) Holmgren

Termes (Macrotermes) manilanus Oshima. Plate I, figs. 3–5.

Termes (*Macrotermes*) *manilanus* OSHIMA, Ann. Zool. Jap. (1914), 8, 565.

Imago.—Body chestnut-brown, paler on ventral side; basal portion of clypeus yellow; antennæ, T-shaped patch on pronotum, anterolateral corners of the same, anterior border of mesonotum and metanotum brownish yellow. Head sparingly pilose; abdominal tergites provided with subequal hairs; labrum, pronotum, and wing stumps densely pilose.

Head broadly oval, sides slightly converging anteriorly, somewhat flattened; eyes very large, prominent; ocelli separated from eye by a distance equal to their radius; fontanelle indistinct, slightly elevated; basal portion of clypeus very large, shorter than half of the width, markedly swollen; antennæ 19-jointed, 3d joint slightly longer than 2d, 4th joint shorter than 3d; pronotum semicircular, broader than head, anterior border concave, posterior border weakly curved at middle; mesonotum and metanotum as broad as pronotum, their posterior borders concave; wings yellowish brown, with yellowish costal band, densely pilose; median nerve of anterior wing runs near to cubitus, starting from the wing stump, branched in the middle area of wing, with about three branches; cubitus with about seven branches, of which the proximal ones are stronger.

	Mm.
Length of body with wing	27.00
Length of body without wing	12–14.00
Length of head	1.86
Width of head	2.00
Width of pronotum	2.33
Length of pronotum	1.53
Length of anterior wing	24.00

Habitat.—LUZON, Manila (*Banks*), December 10, 1911; Laguna, Paete (*McGregor*), August 5, 1915, Sarai (*McGregor*), June, 1915.

Termes (Macrotermes) philippinensis Oshima. Plate I, figs. 7 and 8.

Termes (Macrotermes) philippinensis OSHIMA, Ann. Zool. Jap. (1914), 8, 566.

Imago.—Body chestnut-brown, ventral side paler; basal portion of clypeus, labrum, antennæ, T-shaped patch on pronotum, and anterolateral corners of the same brownish yellow; wings brown. Head densely pilose, short, delicate hairs being intermingled with longer, spiny hairs; abdominal tergites densely provided with minute hairs; wing stumps moderately pilose.

Head round, with sides considerably converging anteriorly; eyes moderately large; ocelli separated from eye by a distance greater than their diameter; fontanelle dotted, reddish, somewhat elevated; transversal band depressed; basal portion of clypeus slightly shorter than half of its width, markedly swollen; antennæ 19-jointed, 2d joint much longer than 3d, 4th joint as long as 3d; pronotum slightly broader than head, nearly saddle-shaped, anterolateral corners markedly swollen, anterior and posterior borders bilobed; median nerve of anterior wing proximally coalescent with cubitus, the former with about four branches in the apical portion, the latter with ten branches, most of them forked.

	Mm.
Length of body with wing	26.00
Length of body without wing	13.00
Length of head	1.50
Width of head	2.00
Width of pronotum	2.19
Length of pronotum	1.25
Length of anterior wing	21.50

Soldier (the larger form).—Head reddish brown, with black-brown mandibles; abdomen yellowish; antennæ dark yellow. Head and abdominal tergites hairless.

Head quadrangular, sides strongly converging anteriorly; fontanelle distinct, minute, situated in front of the center of head; basal portion of clypeus short, posteriorly not separated from forehead; labrum tongue-shaped, with triangular hyaline tip; mandibles stout, tip slightly incurved; antennæ 17-jointed, 3d joint slightly longer than 2d; pronotum broad, anterior and posterior borders bilobed; sides of mesonotum and metanotum rounded.

	Mm.
Length of body	8.50–9.50
Length of head with mandible	4.66–5.20
Length of head without mandible	3.33–3.66
Width of head	2.66–2.93
Width of pronotum	2.33–2.56
Length of pronotum	1.12–1.33

Soldier (*the smaller form*).—Head reddish brown; abdomen straw-colored; mandibles reddish brown; labrum, antennæ, and legs somewhat paler. Head smooth; abdominal tergites provided with microscopically minute hairs, two or three posterior tergites with longer hairs.

Head quadrangular, sides strongly converging anteriorly; fontanelle indistinct; basal portion of clypeus short, posteriorly not separated from forehead; labrum lancet-shaped, with pointed, hyaline tip; mandibles saber-shaped, tip strongly incurved; antennæ 17-jointed, 2d joint as long as 3d, 4th joint slightly shorter than 3d; pronotum semicircular, anterior and posterior borders weakly indented at middle; mesonotum considerably narrower than pronotum, sides rounded, posterior border slightly concave; metanotum as broad as pronotum, oval, posterior border straight.

	Mm.
Length of body	6.00–7.00
Length of head with mandible	3.59–3.75
Length of head without mandible	1.81–2.18
Width of head	1.56–1.75
Width of pronotum	1.40–1.44
Length of pronotum	0.78–0.84

Worker (*the larger form*).—Head reddish yellow; abdomen yellowish. Head and abdominal tergites sparingly pilose.

Head quadrate, with rounded posterior border; basal portion of clypeus markedly swollen; fontanelle whitish, round; antennæ 18-jointed, 2d joint nearly as long as 3d, 4th joint half as long as 3d; pronotum saddle-shaped, anterior and posterior borders bilobed.

	Mm.
Length of body	6.00–6.50
Width of head	1.97–2.12
Width of pronotum	1.09–1.21

Worker (*the smaller form*).—Paler and smaller. Hairiness as in the former.

Antennæ 17-jointed, 2d joint slightly longer than 3d, 4th joint as long as 3d.

	Mm.
Length of body	5.00–5.50
Width of head	1.31–1.39
Width of pronotum	0.91

Habitat.—LUZON, Laguna, Los Baños and Mount Maquiling (*Baker*); Manila (*Banks*), June 26, 1910.

Termes (Macrotermes) luzonensis Oshima. Plate I, figs. 1 and 2.

Termes (*Macrotermes*) *luzonensis* OSHIMA, Ann. Zool. Jap. (1914), 8, 569.

Imago.—Unknown.

Soldier (*the larger form*).—Head reddish brown; abdomen dark yellow. Head and abdominal tergites smooth.

Head broadly oval, with rounded posterior border, sides converging anteriorly, slightly vaulted above; no rudiment of eye; fontanelle situated in front of the center of head, round and minute; basal portion of clypeus very short; labrum tongue-shaped, short, with triangular, hyaline tip; mandibles short, stout; antennæ 17-jointed, 3d joint as long as 2d, 4th joint as long as 5th and slightly shorter than 3d; pronotum broad, anterior and posterior borders bilobed; mesonotum oval, narrower than pronotum, posterior border slightly emarginate at middle; metanotum as broad as mesonotum, posterior border straight; sides of mesonotum and metanotum rounded.

	Mm.
Length of body	7.50–8.00
Length of head with mandible	4.13
Length of head without mandible	2.66–2.75
Width of head	2.25–2.28
Width of pronotum	1.88–1.94
Length of pronotum	1.03–1.09

Soldier (*the smaller form*).—Rather paler and smaller than the above larger form.

Head yellow; abdomen straw-colored. Head smooth; abdominal tergites provided with microscopically minute hairs, longer hairs intermingled with such in the posterior tergites.

Head broadly oval, sides slightly converging anteriorly; labrum long, slender, lancet-shaped, with obtuse hyaline tip; mandibles slender; basal portion of clypeus slightly swollen; fontanelle indistinct; antennæ 17-jointed, 2d joint as long as 3d, 4th joint as long as 3d; pronotum much narrower than head, longer than half the width, anterior and posterior borders indented at middle, the former convex; mesonotum narrower than pronotum, metanotum as broad as pronotum, their lateral sides rounded.

	Mm.
Length of body	5.50
Length of head with mandible	2.97
Length of body without mandible	1.72
Width of head	1.45
Width of pronotum	1.09
Length of pronotum	0.69

Worker.—Head yellow; abdomen straw-colored. Head and abdominal tergites sparingly provided with subequal hairs.

Head round; fontanelle spotted, whitish; basal portion of clypeus swollen; antennæ 17-jointed, 3d joint shorter than 2d, 4th joint as long as 3d; pronotum saddle-shaped, provided with a median, shallow longitudinal groove, anterior border strongly elevated and bilobed, posterior border indented at middle.

	Mm.
Length of body	4.50
Width of head	1.66
Width of pronotum	0.90

Habitat.—LUZON, Laguna, Los Baños (*Baker*).

Termes (Termes) copelandi Oshima. Plate II, figs. 1 and 2.

Termes (Termes) copelandi OSHIMA, Ann. Zool. Jap. (1914), 8, 570.

Imago.—Unknown.

Soldier (the larger form).—Head reddish brown, antennæ and legs paler; abdomen dark yellow. Head hairless; abdominal tergites provided with microscopically minute hairs.

Head cylindrical, sides very slightly converging anteriorly; fontanelle dotted, minute, situated at the center of head; basal portion of clypeus very short; labrum lancet-shaped, with pointed, hyaline tip; mandibles stout, short; antennæ 17-jointed, 2d joint as long as 3d, 4th joint slightly shorter than 3d; pronotum broad, anterior and posterior borders distinctly indented at middle, the former slightly elevated; mesonotum and metanotum considerably narrower than pronotum; their lateral margins rounded, posterior borders concave.

	Mm.
Length of body	8.50
Length of head with mandible	4.53
Length of head without mandible	2.97
Width of head	2.56
Width of pronotum	2.03–2.19
Length of pronotum	1.09–1.19

Soldier (the smaller form).—Head yellow; abdomen straw-colored. Head hairless; abdominal tergites moderately pilose, hairs microscopical.

Head oval, sides slightly converging anteriorly; fontanelle minute; labrum lancet-shaped, with hyaline tip; antennæ 17-jointed, 2d and 3d joints as long as 4th; pronotum slightly nar-

rower than head, anterior and posterior borders weakly indented at middle, the former convex.

	Mm.
Length of body	5.00–6.00
Length of head with mandible	3.03–3.19
Length of head without mandible	1.69–1.90
Width of head	1.46–1.56
Width of pronotum	1.12–1.22
Length of pronotum	0.68–0.72

Worker (*the larger form*).—Head yellow; abdomen whitish; antennæ brownish. Head sparingly pilose, abdominal tergites provided with subequal hairs.

Head round; fontanelle whitish, round, no rudiments of eye; forehead in front of fontanelle depressed; basal portion of clypeus shorter than half the width, slightly swollen; pronotum saddle-shaped; antennæ 18-jointed, 2d joint as long as 3d, 4th joint shorter than 3d.

	Mm.
Length of body	5.00–6.00
Width of head	1.88
Width of pronotum	1.00–1.06

Worker (*the smaller form*).—Apical portion of clypeus whitish, its basal portion half as long as broad, markedly swollen; antennæ 17-jointed, 3d and 4th joints subequal, considerably shorter than 2d.

	Mm.
Length of body	5.00
Width of head	1.25
Width of pronotum	0.75–0.88

Habitat.—LUZON, Laguna, Los Baños (*Baker*); PALAWAN (*W. Schultze*).

Genus EUTERMES Müller

Eutermes (Hospitalitermes) saraiensis sp. nov. Plate II, fig. 3.

Imago.—Unknown.

Soldier.—Head reddish brown, tip of rostrum somewhat paler; thorax and abdomen brown; proximal joint of antennæ reddish brown, the other joints paler, darker proximally; femur brown, tibia and tarsus yellow. Head smooth; abdominal tergites provided with minute hairs, posterior three tergites with a series of long hairs along their posterior border.

Head suborbicular, anterior surface of rostrum making a marked curve with dorsal surface of head; antennæ 14-jointed, 2d joint half as long as 3d, 4th joint as long as 3d; apical por-

tion of mandibles toothless; pronotum saddle-shaped, anterior border not indented at middle; legs slender and elongated.

	Mm.
Length of body	3.20
Length of head with rostrum	1.62
Length of head without rostrum	1.25
Width of head	1.03
Width of pronotum	0.62

Worker.—Head dark brown; color of antennæ, legs, and abdomen as in the soldier. Head provided with minute hairs; posterior abdominal tergites coarsely provided with long spiny hairs along the posterior border.

Head round, sides converging anteriorly, transversal band depressed anteriorly; sutures of head distinct; basal portion of clypeus shorter than half the width; pronotum saddle-shaped, anterior border rounded, not emarginate at middle; antennæ 15-jointed, 2d joint shorter than 3d, 4th joint as long as 3d.

	Mm.
Length of body	3.80
Width of head	1.09
Width of pronotum	0.78

Habitat.—LUZON, Laguna, Sarai, near Paete (*McGregor*), June, 1915.

Eutermes (Hospitalitermes) hospitalis Haviland. Plate II, figs. 12–14.

Imago.—Unknown.

Soldier.—Head and abdominal tergites dark chestnut-brown, tip of rostrum paler; antennæ and legs reddish brown. Head and most of abdominal tergites hairless; anterior border of pronotum provided with a series of minute hairs.

Head pear-shaped, anterior part somewhat constricted behind the junction of rostrum; rostrum conical, rather short, its upper surface making a strong curve with the surface of top of head; antennæ 14-jointed, each joint slender and elongated, 3d joint more than twice as long as 2d, 4th joint slightly shorter than 3d; mandibles with pointed apical portion; pronotum saddle-shaped, anterior border rounded, not indented at middle; legs slender and elongated.

	Mm.
Length of body	4.00
Length of head with rostrum	1.66
Length of head without rostrum	1.19
Width of head	0.93
Width of pronotum	0.62

Worker (*the larger form*).—Color as in the soldier. Head and abdominal tergites provided with microscopically minute hairs.

Head round, sides slightly converging anteriorly, dorsal sutures whitish; middle part of transversal band triangularly depressed; basal portion of clypeus markedly swollen, shorter than half the width; antennæ 15-jointed, 3d joint twice as long as 2d, 4th joint slightly shorter than 3d; pronotum saddle-shaped, anterior border entire.

	Mm.
Length of body	4.50
Width of head	1.12
Width of pronotum	0.78

Worker (the smaller form).—Color and hairiness as in the former; antennæ 15-jointed, 2d to 4th joints subequal in length.

	Mm.
Length of body	3.50
Width of head	1.00
Width of pronotum	0.59

Habitat.—LUZON, Laguna, Sarai, near Paete (*McGregor*), June 13, 1915.

Eutermes (Ceylonitermes) mcgregori sp. nov. Plate I, fig. 10.

Imago (wingless).—Head brownish yellow; abdomen paler; antennæ, pronotum, and legs golden yellow; wing stumps darker. Head coarsely provided with long spiny hairs; pronotum and wing stumps densely pilose; abdominal tergites provided with two series of long spiny hairs.

Head round, sides slightly converging anteriorly, flattened; eye large, prominent; ocelli separated from eye by a distance of their diameter; fontanelle distinct, situated just behind the line of ocellus; basal portion of clypeus posteriorly not separated from forehead; antennæ 15-jointed, 3d joint longer than 2d, 4th joint as long as 2d; pronotum considerably broader than head, semilunar, longer than half of the width, anterior border nearly straight, posterior border rounded, anterolateral corners markedly depressed; anterior wing stumps covering anterior half of the posterior.

	Mm.
Length of body	7.50
Length of head	1.34
Width of head	1.40
Width of pronotum	1.50
Length of pronotum	0.96

Soldier.—Head pale brown, rostrum darker; antennæ pale brown; legs and abdominal tergites pale yellowish white. Head pilose, long spiny hairs intermingled with microscopically minute hairs; abdominal tergites provided with minute hairs, in the

posterior tergites a series of long spiny hairs intermingled with such along the posterior border.

Head suborbicular, sides slightly constricted in front and slightly converging anteriorly; rostrum slender, conical, its dorsal surface making a weak curve with upper surface of head; antennæ 12-jointed, 2d to 4th joints subequal in length; pronotum saddle-shaped, anterior border rounded; legs slender.

	Mm.
Length of body	4.00
Length of head with rostrum	1.56
Length of head without mandible	0.90
Width of head	0.93
Width of pronotum	0.46

Worker.—Head pale yellow, dorsal sutures whitish; abdomen and legs white. Head sparingly pilose; abdominal tergites moderately provided with minute hairs.

Head round; basal portion of clypeus shorter than half the width; antennæ 14-jointed, 2d joint nearly twice as long as 3d, 4th joint ring-shaped; pronotum saddle-shaped, anterior border entire.

	Mm.
Length of body	3.50
Width of head	0.96
Width of pronotum	0.46

Habitat.—LUZON, Laguna, Sarai, near Paete (*McGregor*), June, 1915.

Eutermes (Eutermes) gracilis sp. nov. Plate I, fig. 9; Plate II, figs. 4 and 5.

Imago.—Unknown.

Soldier.—Head and antennæ dark yellow, rostrum reddish brown; abdomen and legs straw-colored. Head very sparingly pilose; abdominal tergites provided with microscopically minute hairs, small number of spiny hairs intermingled with such.

Head round, with a slender conical rostrum, anterior surface of the latter in the same plane of top of head; apical portion of mandible pointed, rudimentary; antennæ 12-jointed, 2d joint as long as 3d, 4th joint much longer than 3d; pronotum saddle-shaped, anterior border bilobed.

	Mm.
Length of body	3.00–3.50
Length of head with rostrum	1.59
Length of head without rostrum	0.84
Width of head	0.93
Width of pronotum	0.47

Worker.—Head yellow; abdomen milk-white; antennæ and

legs yellowish white. Hairiness of head and abdomen as in the soldier.

Head round, dorsal sutures distinct, whitish; basal portion of clypeus shorter than half the width, markedly swollen; antennæ 14-jointed, 2d joint longest, nearly twice as long as 4th, 4th joint shorter than 3d; pronotum saddle-shaped, with bilobed anterior border.

	Mm.
Length of head	3.00
Width of head	1.03
Width of pronotum	0.56

Habitat.—LUZON, Laguna, Sarai, near Paete (*McGregor*), June 26, 1915.

Eutermes (Eutermes) manilensis sp. nov. Plate I, fig. 6; Plate II, fig. 11.

Imago.—Unknown.

Soldier.—Head and rostrum black-brown, tip of the latter paler; thorax and abdomen pale reddish brown; antennæ and legs yellowish brown. Head coarsely provided with long spiny hairs; abdominal tergites nearly smooth, in the posterior tergites long spiny hairs intermingled with microscopically minute hairs.

Head ovoid, with a conical rostrum, anterior surface of the latter making a weak curve with top of head; antennæ 12-jointed, 3d joint much longer than 2d, 4th joint as long as 2d; mandibles with a toothless apical portion; pronotum saddle-shaped, slightly elevated anteriorly, anterior border weakly indented at middle.

	Mm.
Length of body	4.00
Length of head with rostrum	1.87
Length of head without rostrum	1.00
Width of head	1.25
Width of pronotum	0.59

Worker (the larger form).—Head black-brown, transversal band and clypeus paler; abdomen pale yellowish brown; antennæ and legs yellow. Head pilose; abdominal tergites densely provided with delicate hairs.

Head round, sides slightly converging anteriorly, dorsal sutures whitish; basal portion of clypeus slightly swollen, much shorter than half the width; antennæ 14-jointed, 2d joint nearly as long as 3d, 4th joint half as long as 3d; pronotum saddle-shaped, anterior border indented at middle.

	Mm.
Length of body	5.80
Width of head	1.47
Width of pronotum	0.87

Worker (*the smaller form*).—Head yellowish brown, rather paler; antennæ, legs, and abdomen straw-colored. Head sparingly pilose; abdominal tergites provided with two series of spiny hairs; antennæ 14-jointed, 2d joint longer than 3d, 4th joint ring-shaped, half as long as 3d; pronotum saddle-shaped, anterior border entire.

	Mm.
Length of body	4.00
Width of head	0.93
Width of pronotum	0.53

Habitat.—LUZON, Manila (*Banks*), May 20, 1915, in mango, *Mangifera indica* Linn.

Eutermes (Grallatotermes) luzonicus Oshima. Plate II, fig. 6.

Eutermes (*Grallatotermes*) *luzonicus* OSHIMA, Ann. Zool. Jap. (1914), 8, 581.

Imago.—Unknown.

Soldier (*the larger form*).—Head dark brown; abdomen dark yellow, shiny. Head very sparingly provided with spiny hairs; abdominal tergites densely provided with minute hairs, posterior tergites with longer spiny hairs along the posterior border.

Head broadly oval; rostrum conical, its anterior surface making a curve with the anterior surface of head, basal part slightly swollen; apical portion of mandibles very short; antennæ 13-jointed, 3d and 4th joints longer than 2d; pronotum saddle-shaped, anterior border slightly indented at middle, posterior border rounded.

	Mm.
Length of body	4.00
Length of head with mandible	1.78–1.81
Length of head without mandible	1.06
Width of head	1.16–1.22
Width of pronotum	0.56

Soldier (*the smaller form*).—Color as in the former; head and abdominal tergites nearly smooth, very sparingly provided with spiny hairs; antennæ 13-jointed, 3d joint nearly as long as 2d.

	Mm.
Length of body	3.50
Length of head with rostrum	1.65
Length of head without mandible	1.00
Width of head	1.09
Width of pronotum	0.50

Worker (*the larger form*).—Head chestnut-brown, abdomen yellowish white. Head sparingly provided with spiny hairs; abdominal tergites covered by delicate hairs, posterior tergites with longer hairs.

Head quadrate, with rounded posterior border, dorsal sutures distinct; basal portion of clypeus much shorter than half the width, slightly swollen; antennæ 14-jointed, 3d joint longer than 2d, 4th joint shorter than 3d; pronotum saddle-shaped, anterior border bilobed.

	Mm.
Length of body	5.00
Width of head	1.25
Width of pronotum	0.78

Worker (the smaller form).—Head dark brown, transversal band considerably paler. Head coarsely pilose; abdominal tergites densely provided with minute hairs, with a series of spiny hairs along their posterior border.

Dorsal sutures of head distinct; antennæ 14-jointed, 2d joint as long as 3d, 4th joint much shorter than 3d; pronotum saddle-shaped, anterior and posterior borders rounded, not indented at middle.

	Mm.
Length of body	3.80
Width of head	0.94
Width of pronotum	0.44

Habitat.—LUZON, Laguna, Los Baños (*Baker*).

Genus MICROCEROTERMES Wasmann

Microcerotermes los-banosensis Oshima. Plate I, fig. 11.

Microcerotermes los-banosensis OSHIMA, Ann. Zool. Jap. (1914), 8, 583.

Imago.—Unknown.

Soldier.—Head yellow; mandibles brown; abdomen white. Head very sparingly pilose; abdominal tergites thinly provided with microscopical hairs.

Head quadrangular, elongated, with rounded corners, slightly vaulted above, truncated in front; no fontanelle; posterior border of clypeus arcuate, anterior border straight; labrum short and broad, tongue-shaped; mandibles slender, saber-shaped, with strongly incurved piercing tip, masticating edge minutely serrated; antennæ 13-jointed, 1st joint very stout, 3d joint shorter and narrower than 2d, 4th joint as long as 2d; pronotum saddle-shaped, anterior and posterior borders rounded and indented at middle.

	Mm.
Length of body	5.50
Length of head with mandible	2.56–2.66
Length of head without mandible	1.66–1.72
Width of head	1.03
Width of pronotum	0.34
Length of pronotum	0.66

Worker.—Head pale yellow, abdomen white. Head moderately pilose; abdominal tergites densely provided with minute hairs.

Head broadly oval, slightly longer than broad; dorsal sutures of head indistinct, whitish; basal portion of clypeus half as long as broad, anterior border straight, posterior border convex, slightly swollen, with a shallow median groove; antennæ 13-jointed, 3d joint minute, half as long as 2d, 4th joint longer than 3d; pronotum saddle-shaped, anterior border slightly indented at middle.

	Mm.
Length of body	4.20
Width of head	0.94
Width of pronotum	0.58

Habitat.—LUZON, Laguna, Los Baños (*Baker*).

ILLUSTRATIONS

[All figures, except those of wings, are made to the same scale.]

PLATE I

Fig. 1. *Termes* (*M.*) *luzonensis*, larger form of soldier.
2. *Termes* (*M.*) *luzonensis*, smaller form of soldier.
3. *Termes* (*M.*) *manilanus*, head and pronotum of imago.
4. *Termes* (*M.*) *manilanus*, anterior wing.
5. *Termes* (*M.*) *manilanus*, posterior wing.
6. *Eutermes* (*E.*) *manilensis*, soldier.
7. *Termes* (*M.*) *philippinensis*, larger form of soldier.
8. *Termes* (*M.*) *philippinensis*, smaller form of soldier.
9. *Eutermes* (*E.*) *gracilis*, soldier.
10. *Eutermes* (*C.*) *mcgregori*, soldier.
11. *Microcerotermes los-banosensis*, soldier.

PLATE II

Fig. 1. *Termes* (*T.*) *copelandi*, larger form of soldier.
2. *Termes* (*T.*) *copelandi*, smaller form of soldier.
3. *Eutermes* (*H.*) *saraiensis*, soldier.
4. *Eutermes* (*E.*) *gracilis*, mandible of soldier.
5. *Eutermes* (*E.*) *gracilis*, lateral view of soldier's head.
6. *Eutermes* (*G.*) *luzonicus*, dorsal view of soldier's head.
7. *Eutermes* (*G.*) *luzonicus*, soldier.
8. *Coptotermes flavicephalus*, soldier.
9. *Rhinotermes* (*S.*) *longirostris*, larger form of soldier.
10. *Rhinotermes* (*S.*) *longirostris*, smaller form of soldier.
11. *Eutermes* (*E.*) *manilensis*, dorsal view of soldier's head.
12. *Eutermes* (*H.*) *hospitalis*, mandible of soldier.
13. *Eutermes* (*H.*) *hospitalis*, soldier.
14. *Eutermes* (*H.*) *hospitalis*, dorsal view of soldier's head.

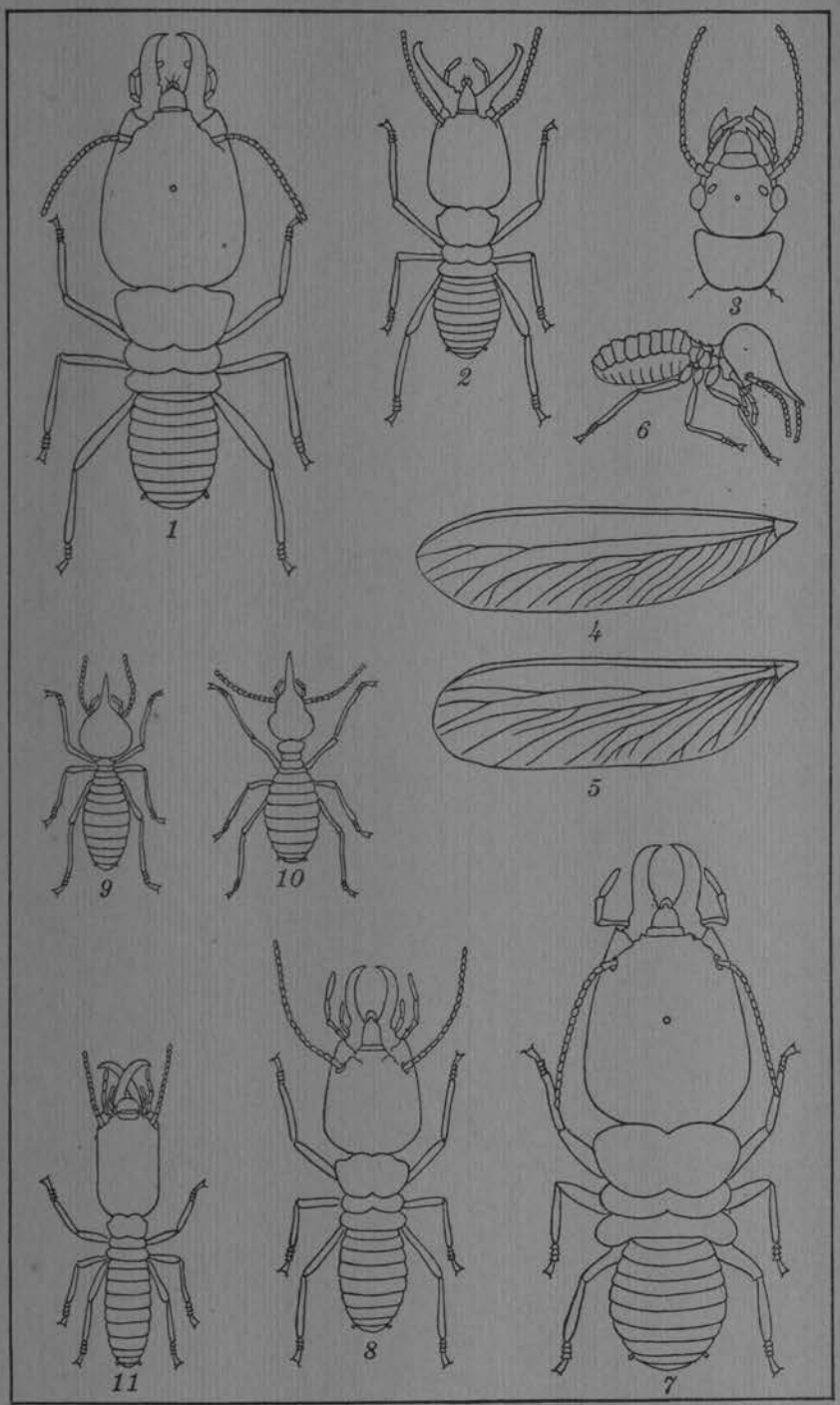

PLATE I. PHILIPPINE TERMITES.

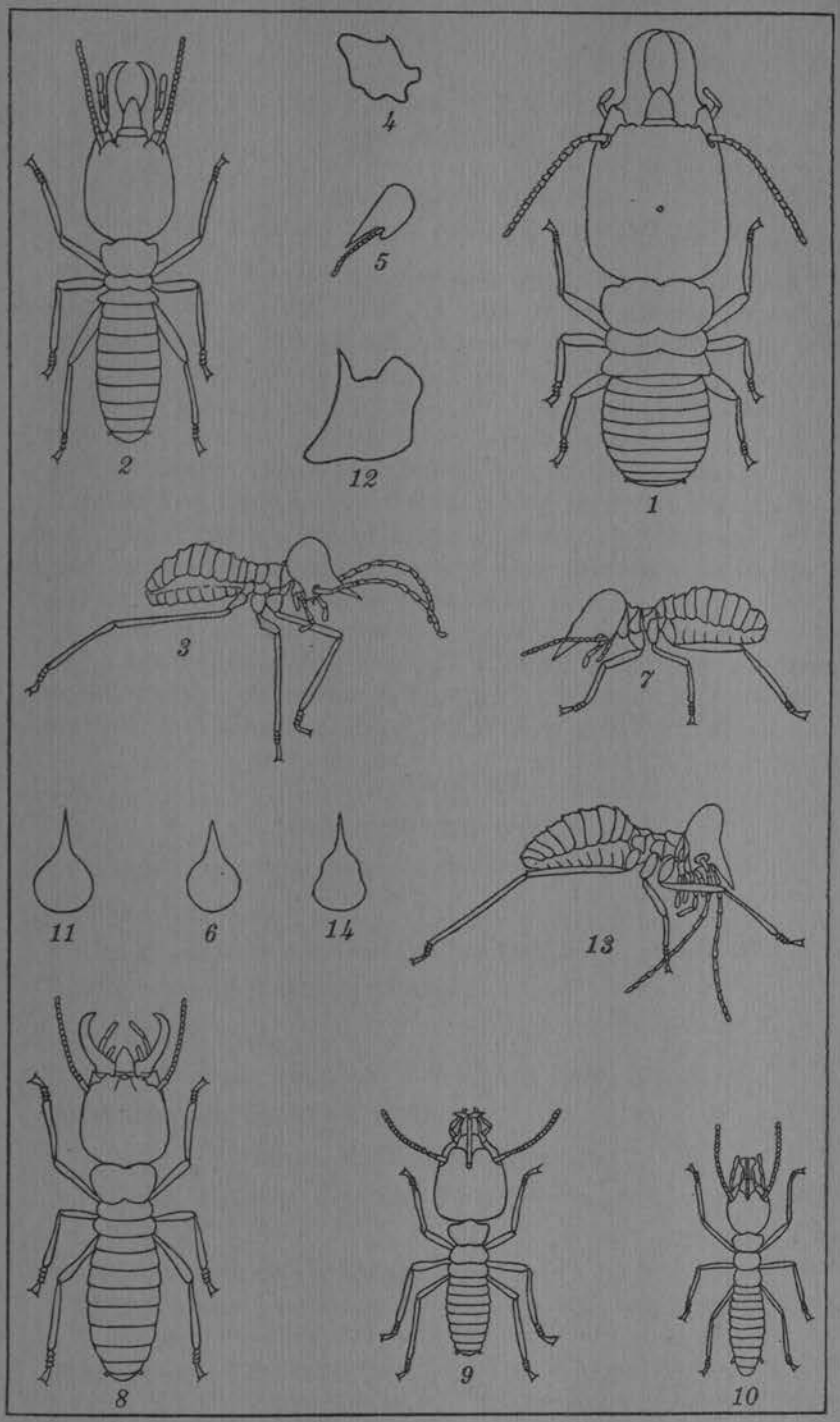

PLATE II. PHILIPPINE TERMITES.

ADDITIONS TO THE KNOWN PHILIPPINE DELPHACIDÆ (HEMIPTERA)

By FREDERICK MUIR
(*Hawaiian Sugar Planters' Association, Honolulu, H. T.*)

The Delphacidæ have been greatly neglected by collectors, especially in the tropics. This is seen in the species previously reported from the Philippine Islands, which amount to less than one dozen. The present list brings the number up to forty. This is but a small part of what will be eventually found. In Prof. C. F. Baker's collection are several undetermined species that I am unable to handle until my return to Honolulu.

The lack of knowledge of this family is to be regretted, as many of its species are of great economic importance. Were it not for the host of parasites that keep these species in check, many of our crops would be devastated.

In working out the species of this family, it is absolutely necessary to use the structural characters found in the male genitalia; especially is this the case in the complex of genera grouped about *Liburnia*, and failure to do so will lead to great confusion.

ASIRACINÆ

Genus UGYOPS Guérin

Ugyops GUÉRIN, Voy. Belanger, Zool. (1834), 4, 477.

Ugyops pictifrons Stål.

Ugyops pictifrons STÅL, Ofr. k. Vet.-Akad. Forh. (1870), 747.

MINDANAO and BASILAN (*Baker*).

Ugyops impictus Stål.

Ugyops impictus STÅL, Ofr. k. Vet.-Akad. Forh. (1870), 748.

MINDANAO and BASILAN (*Baker*).

Genus MELANESIA Kirkaldy

Melanesia Kirkaldy, Ent. Bull. Hawaiian Sug. Plant. Assoc. (1907), No. 3, 128.

Melanesia granulata (Melichar).

Ugyops granulatus MELICHAR, Phil. Journ. Sci., Sec. D (1914), 9, 175 (included, evidently inadvertently, in Cixiinæ).

Both joints of antennæ are longer and more slender than in the type, but the short vertex and the tegmina place it in *Mela-*

nesia. The furcation of the median facial carina has no generic importance.

Melanesia brevipennis sp. nov.

Male.—First joint of antennæ slightly more than half the length of second; median frontal carina forking near apex; head wider than long, vertex slightly longer than wide; tegmina reaching to end of abdomen.

Light brown; face darker with some small light dots on genæ; apex of clypeus dark; pro- and mesonotum dark between carinæ; dark over coxæ; abdomen dark with lighter marks along sides. Tegmina light brown, with dark brown or black markings over clavus, along veins, and over cross veins; the whole surface of tegmina granulated; wings light brown with dark veins.

Genitalia very similar to those of *M. pacifica* Kirkaldy; anal segment short but large, covering the greater portion of the opening of pygophor; a quadrate emargination occurs on ventral edge of pygophor through which the genital styles protrude; styles narrow, straight at base, then curved, the apices bluntly pointed.

Length, 4.3 millimeters; tegmen, 3.4.

Female.—Similar to male.

MINDANAO, Butuan (*Baker*).

Melanesia luzonensis sp. nov.

Male.—Both joints of antennæ longer than in *M. pacifica* Kirkaldy, the second more slender and terete. Vertex, middle of pro- and mesonotum, antennæ, and legs light brown; face, clypeus, and lateral portions of pro- and mesonotum darker brown; abdomen brown, darker along posterior edges of segments; a faint fuscous ring around second joint of antennæ. Tegmina brown, covered all over with whitish granules, which are more numerous before cross veins; darker over median portion of apical cells; a minute dark mark at apex of each of the first four apical veins; claval margin light, forming, when tegmina is closed, a double diamond pattern down the back.

Pygophor similar in type to that of *M. pacifica* Kirkaldy,[1] but with a subconical median process on the ventral edge. Penis very long, thin, and complex, the basal portion straight, followed by a more slender, curved portion with two spines at its base, the apical portion forming a spiral and ending in a long, slender point.

[1] *Ent. Bull. Hawaiian Sug. Plant. Assoc.* (1907), No. 3, 129, Plate XVII, figs. 13, 14.

Length, 4.5 millimeters; tegmen, 5.3.

Female.—Slightly darker in color, similar in size.

LUZON, Mount Maquiling and Baguio (*Baker*).

This species can be distinguished from *M. granulata* Melichar by the dorsal color pattern; by the medioventral process of pygophor being longer, narrower, and more acute at apex; and by the genital styles being much straighter.

Genus PUNANA Muir

Punana MUIR, Proc. Hawaiian Ent. Soc. (1913), 2, 249.

This genus has a single, simple median carina on face.[2]

Punana philippina sp. nov.

Male.—Light brown; genæ and face below eyes lighter; legs and ventral surface lighter, legs marked with small dark bands. Tegmina yellow or light brown, minute brown granules irregularly arranged along the veins, also in the cells; apical veins slightly infuscate at margin; wings dark fuscous with darker veins.

Pygophor long, opening ventrad, ventral edge forming a deep, round emargination with a minute, angular projection in the middle; lateral edges also roundly and deeply emarginate, forming a projection on each side of anal segment; anal segment large, convexo-concave, about as broad as long, sides slightly arcuate, apex subtruncate, anus in middle on raised area; styles slightly flattened, broadest at base, apex subacute, basal two thirds straight, at an angle to apical third.

Length, 3.5 millimeters; tegmen, 4.5.

LUZON, Laguna, Mount Banahao (*Baker*).

Punana negrosensis sp. nov.

Male.—This species differs from *P. philippina* in having the front and middle coxæ and femora darker brown, a small fuscous spot in clavus, and fuscous over cross veins and along media to apex.

Pygophor similar in shape to that of *P. philippina*, but the medioventral process square with corners minutely produced, lateral edges without produced processes along edges of anal segment; anal segment with shallow emargination at apex; styles sickle-shaped, basal fifth straight, apical four fifths curved, apex pointed.

[2] I wrongly stated that this genus possesses two frontal carinæ. *Can. Ent.* (1915), 268.

Length, 3.2 millimeters; tegmen, 3.6.

NEGROS, Cuernos Mountains (*Baker*).

In the Baker collection there are three females from Butuan, Mindanao, and one from Puerto Princesa, Palawan, which I place with this species.

DELPHACINÆ

TROPIDOCEPHALINI

Genus **MALAXA** Melichar

Malaxa MELICHAR, Phil. Journ. Sci., Sec. D (1914), 9, 275.

In this genus the tibial spur is cultrate, with the inner surface concave and with a single apical tooth, none on hind margin. It comes near *Sogatopsis* Muir in the Tropidocephalini.

Malaxa acutipennis Melichar.

Malaxa acutipennis MELICHAR, Phil. Journ. Sci., Sec. D (1914), 9, 275.

One male specimen from Mount Maquiling differs from the description of the type (female) in the following points: Mesonotum, first and second coxæ, all femora, and abdomen except pygophor dark brown. Tegmina with three dark bands, the two across middle uniting on posterior half, the third near base.

Pygophor laterally compressed, edges entire, anal segment very short, projecting but slightly beyond edges of pygophor; styles reaching to lower edge of anal segment, acutely conical, curved inward.

Genus **CONOCRÆRA** novum

Head a little narrower than thorax; vertex triangular, length slightly more than width of base, sides carinate and with a single median longitudinal carina; in profile vertex ascending, making an acute angle with face; length of face four times the breadth or more, base turbinate, sides subparallel, carinæ on sides and a single median carina; clypeus tricarinate, in lateral view slightly curved, antennæ reaching to base of clypeus, terete, joints subequal; pronotum about as long as vertex, hind margin very shallowly and evenly emarginate, tricarinate, lateral carinæ reaching hind margin; mesonotum broader than long, tricarinate, lateral carinæ faint. Spur on hind tibiæ cultrate, slightly convex on inner surface, with a small apical tooth, but no teeth on hind edge. Tegmina laterally compressed, hind margin roundly produced beyond clavus, apex acute; from apex the apical margin forming a continuous curve with costal margin, the latter ending

about half way from apex; media touching both radius and cubitus.

This genus comes near to *Arcofacies* in the Tropidocephalini.

Conocraera acutipennis sp. nov.

Male.—Light green or yellowish, carinæ of head and thorax whitish, bordered with a fine brown hair streak, antennæ with a dark mark near apex of each joint; legs each with a fine brown longitudinal line. Tegmina light brown or yellowish brown, hyaline along costal cell, through middle of tegmina to apex of median sector, hyaline along inner border of clavus and in radial and median apical cells, a dark mark beyond apex of clavus surrounded with hyaline, veins with white granules, wings fuscous hyaline, veins darker.

Pygophor laterally compressed, ovate, a minute spine on medioventral edge; anal segment short, genital styles reaching to anal segment, flattish, narrow at base, gradually narrowing to apex which is truncate, basal two thirds slightly curved, apical third making a half spiral.

Length, 2 millimeters; tegmen, 2.7.

Female.—Unknown.

LUZON, Laguna, Mount Maquiling (*Baker, 2504*); Benguet, Baguio. PALAWAN, Puerto Princesa (*Baker*).

Genus **TROPIDOCEPHALA** Stål

Tropidocephala STÅL, Ofr. k. Vet.-Akad. Forh. (1853), 266.

Tropidocephala flava Melichar.

Tropidocephala flava MELICHAR, Notes Leyden Mus. (1914), 109.

The male genitalia are similar to those of *T. saccharicola* Muir,[3] the head is much longer in proportion to the thorax, and the tegmina are very much lighter in color.

LUZON, Mount Maquiling, Los Baños. LEYTE, Tacloban. MINDANAO, Davao and Dapitan (*Baker*).

Tropidocephala festiva (Distant).

Samara festiva DISTANT, Fauna Brit. India, Rhyn. (1906), 3, 478.

The Philippine specimens of this species agree with those from Borneo and Java.[4]

LUZON, Los Baños, Mount Maquiling, Mount Banahao, and Baguio. PALAWAN, Puerto Princesa. MINDANAO, Davao (*Baker*).

[3] *Proc. Hawaiian Ent. Soc.* (1913), 2, Plate 6, figs. 7, 7*a*.
[4] Ibid., Plate 6, figs. 9, 9*a*.

Tropidocephala philippina Melichar.

Tropidocephala philippina MELICHAR, Phil. Journ. Sci., Sec. D (1914), 9, 273.

The male genitalia of this species agree with those figured of *T. exima* (Kirkaldy), which is considered by Matsumura as a synonym of *T. brunnipennis* Signoret,[5] which according to present identifications has a wide distribution over Africa, Australia, the Malay Archipelago, eastern Asia, Formosa, and Japan.

LUZON, Los Baños, Mount Maquiling, Mount Banahao, and Baguio. MINDANAO, Iligan, Davao, and Dapitan. PALAWAN, Puerto Princesa (*Baker*).

Tropidocephala saccharivorella Matsumura.

Tropidocephala saccharivorella MATSUMURA, Ann. Mus. Nat. Hung. (1907), 65.

The male genitalia of this species are very similar to those of *T. dryas* (Kirkaldy),[6] but the base of the genital styles are broader, and there is a curved spine at the base which is absent in *T. dryas;* the pygophor is more rounded and is without the small spines on the lateral margins.

MINDANAO, Iligan (*Baker*). Formerly known from Formosa and southern China.

Tropidocephala nigrocacuminis sp. nov.

Male.—Vertex more than twice the length of pronotum (2.3 to 1). Light green, yellow, or light brown; two black lines on vertex, one on each side of median carina, from apex to middle, a black spot covering apex of face and base of clypeus partly divided by the lighter median carina, genæ below antennæ black, apex of first joint of antenna and a line on second joint black, coxæ and pleura black; abdomen dark with lighter pleura. Tegmina hyaline with minute white granules on veins, apical cells black with a lighter spot in apex of each cell.

Pygophor with a large spine on medioventral edge, lateral edges acutely angular; styles slightly flattened, rounded at base, slightly constricted near base, apex pointed and slightly twisted; a large, curved black spine with a granulated surface arises from the inner edge of the round basal portion of each style.

Length, 2.5 millimeters; tegmen, 3.

[5] *Ent. Bull. Hawaiian Sug. Plant. Assoc.* (1907), No. 3, Plate 17, figs. 15–16.

[6] Ibid., Plate 17, figs. 4 and 5.

Female.—Abdomen yellowish, tergites darker, sternites brownish along anterior margin.

Length, 3.5 millimeters; tegmen, 3.2.

LUZON, Mount Maquiling (*Baker, Muir*). MINDANAO, Davao and Iligan (*Baker*).

Tropidocephala baguioënsis sp. nov.

Apex of face ovate, not truncate, the lateral carinæ continuing and meeting, together dividing frons from clypeus; face straight in profile, clypeus forming a wide angle with face (about 130°), median carina on clypeus large. Vertex nearly one and a half times the length of pronotum (1 to 1.4).

Light brown; carinæ of vertex and pro- and mesonotum bordered with a fine black hair streak, most distinct along median carinæ; a fine black ring round apex of first antennal joint and round middle and apex of second; abdomen darker brown; tegmina brown, darkest over basal area between clavus and costa, a hyaline mark in clavus along suture, another from end of clavus to costa, broadest on claval margin, a hyaline spot in subcostal, radial, and first and second median apical cells; veins dark, studded with small white granules, a dark spot on media and another on clavus just in front of cross veins; wings slightly fuscous, veins brown.

Pygophor oval, a small knobbed spine on medioventral margin, no spines on lateral margins; genital styles narrow, the inner apical corner produced into a flattened, narrow, curved process with a rounded apex; the outer apical corner produced into a small, blunt spine, from the base arises a large, slightly crooked spine.

Length, 2.7 millimeters; tegmen, 3.3.

Female.—Unknown.

LUZON, Baguio (*Baker*).

The markings on the tegmina and the shape of the genitalia of this species are very similar to those of *T. amboinensis* Muir.

Tropidocephala pseudobaguioënsis sp. nov.

In coloration and shape and proportional size of head this species is similar to *T. baguioënsis;* the antennæ have only one fine black ring which is on the second joint.

Pygophor with a knobbed spine on medioventral edge, no spines on lateral edges, styles flattened, from inner basal edge there arises a long, curved, flattened spine, with granulated surface, on outer edge near base there arises a short, broad, flattened spine, both these basal spines stand at right angle to the surface

of style, apex slightly broadened, truncate, the inner corner developed into a long, curved spine with a rounded apex, the curve forming a semicircle.

Length, 2.5 millimeters; tegmen, 3.

Female.—Similar to male, abdomen light brown, ovipositor darker on basal half.

Length, 3.0 millimeters; tegmen, 3.5.

MINDANAO, Iligan and Davao (*Baker*).

The shape of the genital styles separates this species from *T. baguioënsis.*

Genus PUROHITA Distant

Purohita DISTANT, Fauna Brit. India, Rhyn. (1906), 3, 470.

Purohita nigripes sp. nov.

Male.—Light brown; vertex and face between eyes darker, antennæ and base of face irrorated with dark brown or black, carinæ of thorax lighter; joints of first and second tarsi and apical joint of hind tarsi black; abdomen darker brown. Tegmina hyaline, costa yellow, other veins black with the black spreading out into cells, especially on apical half, subcostal vein before cross vein and all cross veins colorless, veins with fine granules bearing black hairs. Wings hyaline with light brown veins.

Ventral edge of pygophor forming two triangular plates touching in middle, the apex of each plate forming a small tooth with a smaller tooth on the inner edge; anal segment about twice as long as broad, sides subparallel, apex truncate, anus in apical third; styles thin, subulate apices slightly curved; penis long, strongly curved, and sharply pointed at apex.

Length, 3.5 millimeters; tegmen, 4.5.

Female.—Larger, but similarly colored; ovipositor broad and flat, forming a deep keel from middle to slightly beyond apex of abdomen.

Length, 5.2 millimeters; tegmen, 7.5.

LUZON, Laguna, Los Baños (*Muir*), on bamboo.

The eggs are laid singly in lines in the stem of young bamboo and covered with a mass of waxy secretion, which is secreted by glands on the sternites beside the ovipositor and transferred from there to the bamboo by the aid of the hind tarsi. The newly hatched nymphs have the antennæ terete, the first joint broader than long, the length of second about twice its width, the arista has a comparatively large, round base with a long flagellum. The basal joint increases in length at each ecdysis, at the penultimate it is much longer than the second joint and

has a slight ridge along it, but is not flattened until the adult stage. The face has two median carinæ until the last ecdysis.

This is the first species of this genus to be taken in the Philippine Islands; others are known from Ceylon, India, southern China, and Formosa. One species from Formosa approaches the Philippine genus *Lanaphora* Muir.[7]

Genus **LANAPHORA** Muir

Lanaphora MUIR, Canadian Entom. (1915), 317.

Lanaphora bakeri Muir.

Lanaphora bakeri MUIR, Canadian Entom. (1915), 317.

LUZON, Laguna, Mount Maquiling (*Baker*).

Genus **ARCOFACIES** Muir

Arcofacies MUIR, Canadian Entom. (1915), 319.

Arcofacies fullawayi Muir.

Arcofacies fullawayi MUIR, Canadian Entom. (1915), 319.

LUZON, Manila (*Muir, Fullaway*).

DELPHACINI

Genus **BRACHYCRÆRA** novum

Head as wide as thorax; vertex very short, with more than twice the length; with a single median longitudinal carina; a carina dividing vertex from face; face distinctly longer than wide, slightly narrower at apex than at base, broadest just below eyes, sides arcuate, a single median carina with an indistinct minute furcation at extreme base, a diagonal carina across genæ from below antennæ to apical corner of frons; clypeus small, tricarinate, in profile in line with face, not angled; antennæ reaching nearly to apex of clypeus, first joint flattened, subtriangular, apex broader than base, second joint about double the length of first, flattened, subovate, the arista at apex; eyes with deep antennal emarginations. Pronotum short, tricarinate, lateral carinæ strongly diverging posteriorly, following hind margin of eyes, not reaching hind margin; mesonotum about as long as wide, tricarinate, lateral carinæ subparallel. Tibial spur cultrate in outline, slightly concave on both sides, with an apical tooth, but no teeth on hind edge. Tegmina long, narrow, pointed at apex, radius not touching media, first median sector touching cubitus.

This genus is near *Stobæra*, but the short, broad head and

[7] *Purohita maculata* Muir, *This Journal, Sec. D* (1916), 11, 311.

arcuate sides of face distinguish it. With a greater knowledge of the character of the spur in other genera, it may prove that this and several allied genera are better placed in the Tropidocephalini.

Brachycraera albolineata sp. nov.

Female.—Green or light brownish green, carinæ of head and thorax lighter; a thin transverse white line across genæ and face below eyes, antennæ brownish, ovipositor brown. Tegmina yellowish, veins slightly darker with small, similarly colored granules.

Length, 2.8 millimeters; tegmen, 3.5.

LUZON, Laguna, Mount Maquiling; Benguet, Baguio (*Baker*).

Genus PERKINSIELLA Kirkaldy

Perkinsiella KIRKALDY, Entom. (1903), 36, 179.

This genus is of economic importance in countries where sugar cane is cultivated, as the eighteen species at present known all live upon that plant, as well as on some other grasses. Fortunately several parasites are locally active in keeping down their numbers, or sugar cane could not be grown over the region of their distribution, for a single species (*P. saccharicida*) introduced into the Hawaiian Islands threatened to ruin the sugar industry there until parasites were introduced to hold it in check. Six species are known in the Philippine Islands and can be distinguished by the following characters:

Key to the Philippine species of Perkinsiella.

a^1. Basal half of face distinctly darker than apical half.
  b^1. Granules on tegmina light in color, very small..... lineata.
  b^2. Granules on tegmina dark.
    c^1. Posterior half of tegmen dark fuscous..... saccharivora.
    c^2. Dark pattern on tegmen confined to apical cells.....pseudosinensis.
a^2. Basal and apical halves of face concolorous; a few light spots on face.
  b^1. Median portion of pro- and mesonotum distinctly lighter than lateral portions ..... bakeri.
  b^2. Median portion of pro- and mesonotum not distinctly lighter than lateral portions.
    c^1. Tegmina light fuscous brown, granules on veins dark brown, large. fuscipennis.
    c^2. Tegmina not fuscous; granules on veins very minute, light. vastatrix.

Perkinsiella vastatrix (Breddin).

Dicranotropis vastatrix BREDDIN, Deutsch. Ent. Zeitschr. (1896), 107.

Common on sugar cane. Philippine specimens agree in coloration with specimens from Java.

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Female.—Green or light brownish green, carinæ of head and thorax lighter; a thin transverse white line across genæ and face below eyes, antennæ brownish, ovipositor brown. Tegmina yellowish, veins slightly darker with small, similarly colored granules.

Length, 2.8 millimeters; tegmen, 3.5.

LUZON, Laguna, Mount Maquiling; Benguet, Baguio (*Baker*).

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a^1. Basal half of face distinctly darker than apical half.
  b^1. Granules on tegmina light in color, very small..... lineata.
  b^2. Granules on tegmina dark.
    c^1. Posterior half of tegmen dark fuscous..... saccharivora.
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a^2. Basal and apical halves of face concolorous; a few light spots on face.
  b^1. Median portion of pro- and mesonotum distinctly lighter than lateral portions ..... bakeri.
  b^2. Median portion of pro- and mesonotum not distinctly lighter than lateral portions.
    c^1. Tegmina light fuscous brown, granules on veins dark brown, large. fuscipennis.
    c^2. Tegmina not fuscous; granules on veins very minute, light. vastatrix.

Perkinsiella vastatrix (Breddin).

Dicranotropis vastatrix BREDDIN, Deutsch. Ent. Zeitschr. (1896), 107.

Common on sugar cane. Philippine specimens agree in coloration with specimens from Java.

Perkinsiella bakeri sp. nov.

Male.—Macropterous form; structure typical. Vertex and face brown, lighter spots coalescing and forming small bands across face, clypeus and antennæ darker brown; pro- and mesonotum light in middle, dark brown outside of lateral carinæ; rest of thorax, coxæ, femora, and abdomen dark brown; tibiæ and tarsi light brown, spur on hind tibiæ dark brown on outer side. Tegmina hyaline, fuscous brown, lighter over basal half, dark over apical half, especially distad of clavus; a triangular, lighter mark at end of costal cell and a smaller spot at apex of each apical cell, a small dark spot at apex of claval margin, rest of claval margin white or yellowish white; veins closely studded with black granules; wings hyaline, veins dark.

Pygophor slightly compressed laterally, ventral edge medially produced into a small plate which is bifid at apex; at each side of base of plate the pygophor is slightly depressed; anal segment with a long, thin, inwardly curved spine from each ventral corner, spines reaching across pygophor; genital styles small, basal portion spindle-shaped, slightly flattened, apex drawn to a point, which is at right angles to basal portion.

Length, 2.7 millimeters; tegmen, 4.

Female.—Macropterous form, similar to male. Brachypterous form: Heavier in build than the male, especially the abdomen, also lighter in color; tegmina reaching about one fourth from apex of abdomen, hyaline, veins with brown granules, margin of clavus whitish with dark mark at apex; wings rudimentary.

Length, 4 millimeters; tegmen, 4.5.

This species is near *P. amboinensis*, but the genitalia are very distinct; it can easily be distinguished also by the dark lateral margins of pro- and mesonotum.

LUZON, Laguna, Los Baños (*Baker, Muir*), on sugar cane and sorghum.

Perkinsiella saccharivora sp. nov.

Male.—Macropterous form; structure typical. Antennæ, clypeus, and frons between eyes dark brown, frons below eyes, genæ below antennæ, and a few small spots between eyes light brown or yellowish; two small dark spots occur at apex of frons; vertex and median portion of pro- and mesonotum light brown or yellow, lateral portions dark brown; front and middle coxæ, front femora, a ring around front tibiæ, and the front tarsi dark brown, spur slightly darker along edge; abdomen dark brown. Tegmina hyaline, all anterior of media colorless, all

posterior, including clavus, light brown, veins with small brown granules, hyaline spots in apical cells, hind margin of clavus yellowish white; wings hyaline with brown veins.

Ventral edge of pygophor bearing in middle two large spines, contiguous at base, diverging distally and reaching to anal segment; anal segment with a spine projecting from each ventral corner, the spines curving forward; styles narrow, reaching to anal segment, basal portion slightly flattened, apical portion flattened in the opposite plane, the apex pointed and curved inwardly, making nearly a complete spiral.

Length, 2.8 millimeters; tegmen, 4.3.

Female.—Macropterous form, similar to the male.

Length, 3.2 millimeters; tegmen, 4.6.

LUZON, Laguna, Los Baños (*Muir*).

This species is near to *P. bicoloris* Muir (New Guinea) of which only the female is known. It approaches *P. sinensis* Muir (China and Japan) in its genitalia.

Perkinsiella lineata sp. nov.

Male.—Macropterous form: Vertex, frons between eyes, antennæ, and clypeus light brown, frons below eyes and genæ light yellow, apex of first antennal joint dark, pro- and mesonotum light brown, lateral margins darker; legs light brown, front and middle legs with dark mark on coxæ, a fine longitudinal line on femora, a small dark band on tibiæ and tarsi. Tegmina hyaline, clavus fuscous with white hind margin, a light brown mark down middle from base to apex; veins with small brown granules, a small brown spot at apex of each vein.

Medioventral edge of pygophor produced into two very small, straight spines; anal spines strong, diverging, reaching about halfway across pygophor; styles broad and rounded at base, apically produced into sharp, curved spines, a small spine from upper portion of broad base.

Length, 2.8 millimeters; tegmen, 4.8.

Female.—Similar to the male.

Length, 3.5 millimeters; tegmen, 5.6.

LUZON, Laguna, Los Baños (*Muir*), on sugar cane. PALAWAN, Puerto Princesa (*Baker*).

Perkinsiella fuscipennis sp. nov.

Male.—Head, thorax, and legs light brown; small light dots on face, coxæ, and longitudinal marks on femora and tibiæ dark brown; abdomen dark brown, lighter at base. Tegmina fuscous brown, darker over the three posterior apical cells with a light dot in apex of each, a dark mark on hind margin at end of claval

vein; veins light with large brown granules; hind wings fuscous with dark veins.

Pygophor about as deep as wide, a pair of very small, flattened spines on the medioventral edge; anal spines large, slightly flattened, diverging and slightly curved; styles broadest at base, narrowing to apex where they are produced into small bifurcations.

Length, 2.7 millimeters; tegmen, 4.2.

Female.—Unknown.

MINDANAO, Davao (*Baker*).

This is a Philippine representative of the Australian *P. graminicida* Kirkaldy; there is little difference in the genitalia, but the concolorous face and the greater expanse of the fuscous area on the tegmina distinguish it.

Perkinsiella pseudosinensis sp. nov.

Male.—Face between eyes, clypeus, front coxæ, pleura, and abdomen dark brown; face beyond eyes, genæ, antennæ, and legs yellow or light brown; apex of first joint and sense organs of second joint of antennæ dark; vertex and nota brown with lighter carinæ. Tegmina hyaline, veins light, granules brown, a fuscous spot at end of claval vein fuscous from cross veins over sixth and in apical portion of sixth and seventh apical cells; wings hyaline, veins brown.

Medioventral spines of pygophor flattened, broad, cultrate in outline, and spines subulate, slightly diverging and curved, genital styles quadrate at base, the outer, upper corner produced and continued in a bifurcate process, the inner furcation flattened, curved into a semicircle, apex rounded, the outer furcation short, flattened, curved, the two together forming three fourths of a circle.

Length, 2.5 millimeters; tegmen, 3.7.

Female.—Similar to the male.

Length, 3 millimeters; tegmen, 4.

MINDANAO, Davao, Iligan (*Baker*).

This species is superficially very similar to *P. sinensis* Kirkaldy, but the genitalia are very different.

Genus **STENOCRANUS** Fieber

Stenocranus FIEBER, Verh. Zool. Bot. Ges. Wien (1866), 16, 519.

Stenocranus agamopsyche Kirkaldy.

Stenocranus agamopsyche KIRKALDY, Ent. Bull. Hawaiian Sug. Plant. Assoc. (1906), No. 2, 409.

Previously recorded from Queensland on grasses and sedges.

LUZON, Laguna, Los Baños (*Muir, Baker*), on sugar cane and grasses.

Stenocranus pacificus Kirk.

Stenocranus pacificus KIRKALDY, Ent. Bull. Hawaiian Sug. Plant. Assoc. (1907), No. 3, 139.

Previously recorded from Fiji on sugar cane and grasses. The anal spines are blunter than in the type.

LUZON, Laguna, Los Baños (*Baker, Muir*), on grasses.

Stenocranus pseudopacificus sp. nov.

Male.—Apex of vertex slightly broader, lateral carinæ on pronotum outwardly curved posteriorly, but reaching hind margin; otherwise similar in build and coloration to *S. pacificus*, except in the genitalia.

Pygophor longer than broad, medioventral edge slightly emarginate; lateral edges cut off square at middle, the dorsal half cut back to base of anal segment, at the angle on each side a pair of short, flat spines with wide bases; anal segment large, the ventrolateral corners being produced into large spines, the left one flattish, curved, with rounded apex, the right one flattish, curved, then bent back to ventral surface of anal segment in the form of a wide thin plate; genital styles wide and flattened at base, thinning off to a pointed apex which is curved outward, from the wide base a wide, curved spine arises, reaching about one third from base in front. The genitalia are very distinct.

Female.—Unknown.

Length, 2.2 millimeters; tegmen, 3.4.

LUZON, Benguet, Baguio (*Baker*).

Genus **SARDIA** Melichar

Sardia MELICHAR, Hom. Ceylon (1903), 96.
Hadeodelphax KIRKALDY, Ent. Bull. Hawaiian Sug. Plant. Assoc. (1907), No. 1, 410.

Sardia pluto (Kirkaldy).

Hadeodelphax pluto KIRKALDY, Ent. Bull. Hawaiian Sug. Plant. Assoc. (1907), No. 1, 410.

MINDANAO, Davao and Butuan (*Baker*).

Previously known from Queensland and Fiji. It has been suggested that this species is a synonym of *S. rostrata* Melichar

from India, Ceylon, Java (?), and the Malay Peninsula (?). Only a comparison of the male genitalia will decide this point.

Genus PHYLLODINUS Van Duzee

Phyllodinus VAN DUZEE, Bull. Buffalo Soc. Nat. Sci. (1898), 5, 240.

I am not sure of the distinctions between this genus and *Platybrachus*.[8]

Phyllodinus luzonensis sp. nov.

Male.—Fore and middle tibiæ broad and thin, femora flattened, but not distinctly widened. Brown; carinæ on head and thorax lighter, small light brown spots on base of face, lateral edges of pro- and mesonotum darker, abdomen dark brown, pygophor lighter; front and middle tibiæ and tarsi dark brown, hind tibiæ with a fine longitudinal mark. Tegmina hyaline, slightly fuscous, veins whitish; small brown granules scattered irregularly over surface, apical portion black or dark brown. Tibial spur broad, lamellate, with numerous small teeth on hind edge.

Pygophor short, broad, medioventral edge produced into two flat, short processes with rounded apices; a little laterad of these the edge produced into small processes with round points; anal segment very short; styles not quite reaching to anal segment, gradually tapering to point at apex, apex curved and recurved.

Length, 3 millimeters; tegmen, 2.

The female I associate with this species has the fore and second tibiæ less dilated and lighter in color and the granules on tegmina more regular on the veins.

LUZON, Laguna, Los Baños and Mount Maquiling (*Baker*).

Genus EUMETOPINA Breddin

Eumetopina BREDDIN, Deutch. Ent. Zeitschr. (1896), 109.

Eumetopina flavipes Muir.

Eumetopina flavipes MUIR, Proc. Hawaiian Ent. Soc. (1913), 5, 248.

Originally described from western Borneo and from Papua. Philippine specimens differ in having the light edge of pronotum obscure.

[8] *Platybrachus* is preoccupied (Stål, Hemiptera), but until I am sure of the distinction between the two genera, it is better not to propose a substitute.

LUZON, Tayabas, Mount Banahao (*Muir, Baker*), on sugar cane; Laguna, Los Baños (*Baker*).

Genus MEGAMELUS Fieber

Megamelus FIEBER, Verh. Zool. Bot. Ges. Wien (1866), 519.

Megamelus proserpina Kirk.

Megamelus proserpina KIRKALDY, Ent. Bull. Hawaiian Sug. Plant. Assoc. (1907), No. 3, 147.

Previously known from Fiji. Now found to occur in the Philippines on Mount Maquiling.

Genus PEREGRINUS Kirkaldy

Peregrinus KIRKALDY, Entomologist (1904), 37, 175.

Peregrinus maidis (Ashmead).

Delphax maidis ASHMEAD, Psyche (1890), 323.
Dicranotropis maidis VAN DUZEE, Bull. Buffalo Nat. Hist. Soc. (1897), 5, 240.
Pundaluoya simplicia DISTANT, Fauna Brit. India, Rhyn. (1906), 3, 468, fig. 255.

LUZON, Laguna, Los Baños (*Baker, Muir, Osborn*).

Throughout the year on maize and grasses. Also known from most parts of the Oriental and Malay Regions; Australia; Fiji; Hawaii; North, Central, and South America; the West Indies; and East Africa.

This is one of the commonest leaf hoppers at Los Baños. The eggs are parasitized by a mymarid (*Paranagrus* sp.); otherwise it might be a very serious pest on maize.

Distant, while considering the Hawaiian form specifically the same as the Indian, questions it being the same as Ashmead's type. I have not had an opportunity to examine the type, but specimens from North America that I have examined are specifically the same as the Hawaiian. Crawford, who had specimens from Hawaii, North and South America, and the West Indies, considered them the same species.

Although I have not seen specimens of *Pundaluoya ernesti* Kirby, the description and figure given in The Fauna of British India deter me from placing it in the same genus as *maidis*. The vertex is considerably broader than long, the basal joint of antenna is very short, the lateral edges of the pronotum are described as being marginally strongly carinate—characters that do not fit *P. maidis;* the tegmen also is distinct. For these reasons I retain the two genera as distinct.

Genus DICRANOTROPIS Fieber

Dicranotropis FIEBER, Verh. Zool. Bot. Ges. Wien (1866), 16, 521.

Dicranotropis koebelei (Kirk.).

Phacalastor koebelei KIRKALDY, Ent. Bull. Hawaiian Sug. Plant. Assoc. (1906), No. 1, 408.

LUZON, Laguna, Los Baños (*Baker, Muir*). Previously recorded from Queensland, Fiji, and Java. Perhaps India and Ceylon.[9]

Genus LIBURNIA Stål

Liburnia puella Van Duzee (?).

Liburnia puella VAN DUZEE, Bull. Buffalo Soc. Nat. Sci. (1898), 5.

LUZON, Laguna, Los Baños (*Baker*). Previously known from North America, Queensland, and Fiji.

There is a slight difference in the genitalia from the figure given by Kirkaldy.

Genus DELPHAX Fabricius

Under this inclusive name Kirkaldy[10] described a number of species from Australia and Fiji. At a later date I hope to place Kirkaldy's species in their proper genera. The following I find among the Philippine species:

Delphax kolophon Kirkaldy.

LUZON, Laguna, Los Baños and Mount Maquiling (*Baker*).

Delphax eupompe Kirkaldy.

LUZON, Benguet, Baguio (*Baker*). Previously know from Australia and Fiji.

Delphax albicollis Motsch.

LUZON, Laguna, Los Baños (*Baker, Muir*). Previously known from Ceylon and Java.

Delphax anemonias Kirkaldy.

LUZON, Laguna, Mount Maquiling; Benguet, Baguio (*Baker*). Previously known from Queensland.

[9] *Pundaluoya pulchella* Distant [Ann. & Mag. Nat. Hist. (1912), IX, 8, 190, and Fauna Brit. India, Rhyn. (1916), 6, 135], I believe, is this species.

[10] *Ent. Bull. Hawaiian Sug. Plant. Assoc.* (1907), No. 3, 149.

MELASIDÆ (COLÉOPTÈRES) DES ILES PHILIPPINES RÉCOLTÉS PAR C. F. BAKER

Par Ed. Fleutiaux
(*Nogent-sur-Marne, France*)

J'ai déjà eu l'occasion de signaler les Elateridæ récoltés aux îles Philippines par M. le Professeur Charles Fuller Baker [1] et j'ai aujourd'hui le plaisir de publier la liste des Melasidæ qu'il a bien voulu également m'envoyer. Si le nombre des espèces des Elateridæ de cette provenance déjà décrites antérieurement est assez important, il n'en est pas de même pour les Melasidæ. On est étonné en effet du peu d'espèces jusqu'à présent connues, ce qui explique la quantité relativement grande d'espèces nouvelles créés ci-après.

Genus **SUBPROTELATER** novum

Corps étroit, parallèle. Tête assez convexe. Epistome très court, transversal, presque nul, non rétréci à la base, ne continuant pas la courbure du front et placé sur un plan inférieur. Labre très apparent, arrondi en avant. Mandibules saillantes. Antennes moniliformes. Pronotum très déprimé à la base, avec ses angles postérieurs aigus et carénés comme chez les Elateridæ. Sillons antennaires du propectus marginaux, étroits et profonds, bien limités en dedans par une carène, n'atteignant pas le sommet des angles postérieurs et limités en arrière au niveau du sillon fémoral. Prosternum large; saillie longue, étroite et parallèle. Sutures prosternales ouvertes en arrière pour recevoir les tarses antérieurs. Episternes parallèles. Epipleures des élytres sensiblement de la même largeur, faiblement rétrécies en arrière, bien limitées par une fine carène. Hanches postérieures non rétrécies en dehors, bord latéral plus large que les épisternes, bord inférieur sinué. Pattes courtes; tibias et tarses subcylindriques.

Forme une tribu à part près des Pterotarsini. Corps allongé parallèle, peu convexe; sillons antennaires sur le bord latéral des propleures profonds et nettement limités; sutures prosternales ouvertes en arrière pour recevoir les tarses antérieurs; tarses normaux.

Subprotelater bakeri sp. nov.

Allongé, parallèle, peu convexe; noir brillant avec des taches rouges et jaunes; pubescence blanchâtre, plus visible sur le pro-

[1] *Phil. Journ. Sci., Sec. D* (1914), 9, 441; (1916), 11, 219.

notum. Tête sillonnée au milieu, ponctuée, rougeâtre en avant. Epistome très court, tranversal, déprimé dans le sens de la largeur. Antennes n'atteignant pas la base du prothorax. Pronotum beaucoup plus long que large, parallèle, rétréci seulement au sommet, sillonné au milieu, profondément et densément ponctué. Ecusson oblong, saillant, sur un plan oblique, rugueux. Elytres parallèles, arrondis au sommet, rugueux, profondément ponctués-striés, ornés de deux bandes rouges obliques partant au dessous de l'épaule et se rejoignant sur la suture au dessous de l'écusson, et de cinq petites taches jaunes: une au milieu de la base sur chaque élytre; une sur le bord externe au premier tiers; une un peu plus bas, près de la suture; une plus grande, subtransversale, au milieu, au dernier quart et une dernière étroite, allongée, sur le deuxième interstrie, avant l'extrémité. Dessous noir, peu brillant, ponctué. Sillons antennaires terminés au niveau antérieur du sillon fémoral, avant le sommet des angles postérieurs du propectus. Pattes noirâtres, avec les articulations, les tibias (plus ou moins) et les tarses ferrugineux.

Longueur, 5 millimètres.

LUZON, Laguna, Mount Maquiling.

A l'aspect des *Protelater* de Nouvelle-Zélande, notamment de *P. guttatus* Sharp.

Dromæolus indicus Bonvouloir.

Ann. Soc. Ent. France (1871), 230, Pl. 10, fig. 2.

PALAWAN, Puerto Princesa.

Décrit de Singapour. J'en possède un exemplaire de Martapurâ, Bornéo.

Dromæolus congener Bonvouloir.

Ann. Soc. Ent. France (1871), 213, Pl. 8, fig. 9; FLEUTIAUX, Ann. Mus, Civ. Genova (1896), 534.

LUZON, Tayabas, Mont Banahao.

Décrit de Sarawak; je l'ai vu aussi de Birmanie.

Dromæolus opacus Bonvouloir.

Ann. Soc. Ent. France (1871), 228, Pl. 9, fig. 8.

LUZON, Laguna, Mont Maquiling; Tayabas, Mont Banahao.

Décrit de Celebes. Je l'ai vu de Java dans la collection du Musée de Leyde.[2] J'ai rapporté avec doute à cette espèce un exemplaire de Nouvelle-Guinée du Musée de Gènes.[3]

[2] *Notes Leyden Mus.* (1896), 18, 143.
[3] *Ann. Mus. Civ. Genova* (1896), 566.

Dromæolus subopacus sp. nov.

Oblong, peu convexe; brun noirâtre, pubescence jaune plus dense sur la base du pronotum et des élytres. Tête densément ponctuée; epistome rugueux, très rétréci à la base où il est plus étroit que l'espace compris entre lui et l'oeil; carène interoculaire interrompue sur la base de l'épistome. Antennes ferrugineuses, obscures à la base; 2e et 4e articles égaux; 3e aussi long que les deux suivants réunis; 3e subégal au 4e; suivants graduellement allongés. Pronotum légèrement rétréci en avant à partir de la base, arrondi près des angles antérieurs, sillonné au milieu à la base; ponctuation nette et serrée sur le dessus, forte et rugueuse sur les côtés. Elytres atténués en arrière, ponctués, plus légèrement vers le bout, striés plus visiblement sur le dessus. Dessous de même couleur. Pattes rougeâtres avec les tarses plus clairs et les cuisses rembrunies.

Longueur, 3 à 4.5 millimètres.

LUZON, Laguna, Mont Maquiling; Tayabas, Mont Banahao. MINDANAO, Butuan et Dapitan.

Plus petit que *D. opacus* Bonvouloir, pronotum un peu plus long, élytres plus atténués en arrière, carène interoculaire interrompue.

Dromæolus parvulus sp. nov.

Oblong, peu convexe; brun obscur; pubescence cendrée très dense sur la base du pronotum et des élytres, brune sur le reste du corps. Tête convexe, densément ponctuée; carène interoculaire interrompue au milieu; épistome très rétréci à la base où il est plus étroit que l'espace compris entre lui et l'oeil. Antennes assez longues, atteignant presque la moitié du corps; ferrugineuses, premier article obscur; 2e plus court que le 4e; 3e un peu plus long que le 4e; suivants graduellement allongés. Pronotum aussi long que large à la base, arrondi et graduellement rétréci de la base au sommet, fortement et densément ponctué, nullement sillonné à la base. Elytres rugueux à la base, ponctués en arrière, striés. Dessous de la même couleur. Pattes ferrugineuses avec les cuisses moins claires.

Longueur, 3 à 3.5 millimètres.

LUZON, Laguna, Mont Maquiling.

Voisin de *D. subopacus* Fleutiaux, de forme moins allongée, plus fortement rugueux et ponctué, pronotum plus court, élytres plus distinctement striés.

Dromæolus solitarius sp. nov.

Oblong; brun foncé, rougeâtre sur la suture; pubescence jaune.

Tête densément pontuée, partout au milieu du front une très fine et très courte carène; carène interoculaire interrompue au milieu; épistome rétréci à la base, où il est un peu plus étroit que l'espace compris entre lui et l'oeil. Antennes ferrugineux clair, dépassant notablement la base du prothorax; 2e article subégal au 4e; 3e presque aussi long que les deux suivants réunis; les autres à partir du 5e graduellement allongés; le dernier presque aussi long que les deux précédents réunis. Pronotum aussi long que large, rétréci au sommet, peu convexe, densément ponctué, plus fortement et rugueusement sur les côtés, peu déprimé à la base. Elytres atténués en arrière, rugueux, striés. Dessous d'un brun plus ou moins rougeâtre. Pattes ferrugineux clair.

Longueur, 3 millimètres.

MINDANAO, Misamis, Iligan.

Très voisin de *D. parvulus* Fleutiaux; brunâtre, pubescence jaune; pronotum plus rétréci en avant, moins bombé au milieu; élytres plus atténués en arrière.

Dromæolus minimus Fleutiaux.

Bull. Soc. Ent. France (1896), 334.

MINDANAO, Dapitan.

Décrit de Sumatra.

Ceratus nitidus sp. nov.

Allongé, ovale, noir brillant, pubescence rousse. Tête convexe, densément ponctué. Epistome rugueux, arrondi en avant, rétréci à la base, sensiblement aussi large que l'espace compris entre lui et l'oeil. Antennes brunes, dépassant la base du thorax. Pronotum aussi long que large à la base, graduellement rétréci en avant, sillonné au milieu à la base, densément ponctué. Ecusson oblong, finement pointillé. Elytres graduellement rétréci en arrière, finement pointillés, ne portant qu'une strie suturale. Dessous de même couleur, pubescence jaune, finement ponctué. Pattes rougeâtres.

Longueur, 8 millimètres.

LUZON, Tayabas, Mont Banahao.

Voisin de *C. frontalis* et *C. sumatrensis* Fleutiaux; d'un noir brillant, front non caréné.

Ceratus bakeri sp. nov.

Ovale, peu convexe; noir à peine brillant, pubescence roussâtre. Tête convexe, densément ponctuée; carène interoculaire interrompue sur la base de l'épistome; ce dernier rétréci à la base, un peu plus étroit que l'espace compris entre lui et l'oeil, fortement

et rugueusement ponctué. Antennes ferrugineuses, dépassant la base du prothorax. Pronotum notablement rétréci en avant, déprimé le long de la base, nettement et densément ponctué, marqué de deux impressions distinctes en avant de l'écusson. Elytres rétrécis en arrière surtout au delà de la moitié, rugueux, substriés. Dessous de la même couleur. Pattes d'un brun rougeâtre ou ferrugineux.

Longueur, 5.5 à 6 millimètres.

LUZON, Tayabas, Mont Banahao. MINDANAO, Butuan.

Diffère de *C. parvulus* Fleutiaux par sa taille plus grande, sa forme moins convexe; sa couleur noire; sa ponctuation moins forte; carène interoculaire interrompue sur la base de l'épistome. Pronotum moins long, plus graduellement rétréci en avant, élytres proportionnellement plus longs.

Ceratus unicus sp. nov.

Ovale, peu convexe, noir, à peine brillant, pubescence jaune. Tête convexe, densément ponctuée; carène interoculaire entière; épistome très rétréci à la base, plus étroit que l'espace compris entre lui et l'oeil. Antennes ferrugineuses, atteignant la moitié du corps. Pronotum notablement rétréci en avant, arrondi sur les côtés, déprimé le long de la base, nettement et densément ponctué, rugueux sur les côtés; angles postérieurs aigus, très légèrement divergents au sommet. Elytres atténués en arrière, assez fortement rugueux, distinctement striés. Dessous de la même couleur. Pattes brunâtres, devenant en partie ferrugineuses.

Longueur, 4.5 millimètres.

LUZON, Tayabas, Mont Banahao.

Diffère de *C. parvulus* Fleutiaux par sa forme plus allongée et moins convexe, sa couleur noire, son pronotum relativement plus court et plus graduellement rétréci de la base au sommet, ses élytres proportionnellement plus longs.

Fornax cribricollis sp. nov.

Allongé, convexe, atténué en arrière dans le dernier tiers seulement; noir mat; pubescence jaune plus apparente sur la base du pronotum et des élytres. Tête convexe, très densément ponctuée; épistome rugueux, rétréci à la base où il est aussi large que l'espace compris entre lui et l'oeil. Antennes ferrugineux obscurs; 2e article petit; 3e et 4e deux fois plus longs et sensiblement égaux. Pronotum parallèle dans la première moitié, rétréci en avant, nettement et densément ponctué. Elytres ponctués, plus légèrement en arrière, striés plus distinctement

à la base et sur le dessus. Dessous de même couleur. Pattes brunâtres passant au jaune plus ou moins clair.

Longueur, 4 à 5 millimètres.

LUZON, Laguna, Mont Maquiling; Tayabas, Mont Banahao.

Voisin de *F. subquadratus* Bonvouloir; pronotum plus court, nullement sillonné au milieu à la base.

Fornax fusiformis sp. nov.

Allongé, étroit, convexe, atténué en avant et en arrière; noir; pubescence jaune sur la première moitié du corps, brune en arrière. Tête convexe, densément et rugueusement ponctuée, carénée au milieu; épistome fortement rugueux, rétréci à la base, où il est un peu plus étroit que l'espace compris entre lui et l'oeil. Antennes épaissies vers le bout, ferrugineuses, obscures au milieu. Pronotum un peu plus long que large, graduellement et faiblement rétréci en avant, à ponctuation grosse et rugueuse surtout en arrière, avec une petite ligne lisse au milieu en avant de l'écusson. Elytres graduellement et notablement atténués en arrière, rugueux à la base, pointillés en arrière; stries distinctes à la base et au milieu, effacées en arrière sur les côtés. Dessous de même couleur. Pattes rougeâtres avec les cuisses noirâtres.

Longueur, 4.25 millimètres.

LUZON, Tayabas, Mont Banahao.

Voisin de *F. cribricollis* Fleutiaux; de forme étroite, graduellement atténuée aux deux extrémité, front caréné.

Fornax denticornis sp. nov.

Allongé, convexe; noir mat, pubescence brunâtre peu apparente. Tête convexe, densément ponctuée; carène interoculaire entière; épistome très rétréci à la base, bord antérieur arrondi, base très étroite. Antennes épaisses, dépassant la moitié du corps, brunâtres, dentées; articles 3e et 4e subégaux, suivants graduellement allongés. Pronotum un peu plus long que large, rétréci en avant, fortement et rugueusement ponctué, impressionné au milieu de la base. Ecusson oblong. Elytres atténués en arrière, rugueux, fortement ponctués-striés. Dessous de la même couleur. Sillons antennaires non nettement limités en dedans. Hanches postérieures fortement dilatées en dedans. Pattes brunâtres; tarses plus clairs.

Longueur, 5.75 millimètres.

LUZON, Laguna, Mont Maquiling.

Ressemble a *F. opacus* Fleutiaux, mais beaucoup plus rugueux, antennes dentées. Espèce remarquable, comme lui, par les sil-

lons antennaires non bien nettement limités, comme chez les *Plesiofornax* et les *Scython.*

Fornax nicotianæ Fleutiaux.

Ann. Soc. Ent. Belg. (1895), 162 (*Dromæolus*); Notes Leyden Mus. (1896), 18, 144.

LUZON, Tayabas, Mont Banahao.

Se trouve dans toute la région Indo-malaise.

Fornax concolor E. Blanchard.

Voy. Pôle Sud, Col. (1853), 4, 92, Pl. 6, fig. 14 (*Eucnemis*); BONVOULOIR, Ann. Soc. Ent. France (1872), 316, Pl. 13, fig. 8; FLEUTIAUX, Mém. Soc. Zool. France (1896), 283.

ater BONVOULOIR, Ann. Soc. Ent. France (1872), 312, Pl. 13, fig. 4.

MINDANAO, Butuan.

Je le possède également de Balabac, se trouve aussi communément dans toute la région Indo-malaise.

Fornax morosus Bonvouloir.

Ann. Soc. Ent. France (1872), 313, Pl. 13, fig. 6.

grouvellei FLEUTIAUX, Ann. Soc. Ent. Belg. (1895), 163 (*Dromæolus*).

niger FLEUTIAUX, Ann. Soc. Mus. Civ. Genova (1896), 577; (1899), 572.

LUZON, Tayabas, Mont Banahao.

Se trouve dans toute la région Indo-malaise.

Fornax dircæoides Fleutiaux.

Ann. Soc. Ent. Belg. (1897), 252.

LUZON, Laguna, Mont Maquiling.

Décrit des Philippines (Musée de Berlin).

Je possède un petit exemplaire de 5 millimètres, de Balabac, que je rapporte à cette espèce.

Fornax philippinensis sp. nov.

Allongé, peu convexe, atténué en arrière; brun, pubescence jaune. Tête convexe, régulièrement ponctuée; carène interoculaire interrompue au milieu; épistome rugueux, rétréci à la base ou il est à peu près aussi large que l'espace compris entre lui et l'oeil. Antennes ferrugineuses, dépassant la base du prothorax; 3e article à peine plus long que le suivant. Pronotum plus long que large à la base, subgraduellement mais faiblement atténué en avant, légèrement arrondis sur les côtés, déprimé transversalement à la base; ponctuation fine et écartée. Elytres atténués de la base à l'extrémité, finement et éparsément pointillés, indistinctement striés, strie suturale seule bien marquée. Dessous de même couleur. Saillie prosternale atténuée en arrière en pointe obtuse, déprimée au milieu. Hanches postérieures très largement dilatées et arrondies en dedans. Pattes ferrugineuses.

Longueur, 6 millimètres.

LUZON, Laguna, Mont Maquiling.

Voisin de *F. collega* Bonvouloir; pubescence unicolore, pronotum subgraduellement rétréci en avant.

Je possède un exemplaire de Balabac.

Fornax trapezicollis sp. nov.

Allongé, atténué aux deux extrémités, peu convexe; brun rougeâtre clair, pubescence jaune. Tête convexe, rugueusement ponctuée, faiblement mais distinctement carénée longitudinalement au milieu du front; carène interoculaire entière; épistome rugueux, fortement rétréci à la base où il est beaucoup plus étroit que l'espace compris entre lui et l'oeil. Antennes ferrugineuses à 4e article un peu plus long que le 2e. Pronotum à peine plus long que large à la base, directement atténué de la base au sommet, peu convexe, déprimé à la base et marqué de deux fossettes en avant de l'écusson, finement ponctué; angles postérieurs aigus et redressés. Elytres graduellement atténués en arrière, finement pointillés, indistinctement striés, stries suturale seule bien marquée. Dessous un peu plus foncé. Saillie prosternale faiblement rétrécie en arrière et arrondie à l'extrémité. Epipleures des élytres non sillonnées. Hanches postérieures largement dilatées en dedans. Pattes ferrugineuses.

Longueur, 4.5 millimètres.

LUZON, Tayabas, Mont Banahao.

Voisin de *F. elegantulus* Bonvouloir; s'en distingue par la carène frontale, la carène interoculaire entière sur l'épistome, l'épistome plus étroit à la base.

Fornax ovatus sp. nov.

Ovalaire, très peu convexe; brun rougeâtre plus clair en arrière, pubescence jaune. Tête convexe, densément ponctuée; carène interoculaire interrompue sur la base de l'épistome; épistome très rétréci à la base où il est un peu plus étroit que l'espace compris entre lui et l'oeil. Antennes dépassant la base du prothorax, ferrugineuses, plus clairs au sommet; 2e article deux fois plus court que le 4e; 3e notablement plus long que le suivant. Pronotum arrondi sur les côtés, rétréci en avant, marqué vers le milieu de deux petites fossettes peu profondes; ponctuation nette et assez dense. Elytres rétrécis en arrière dans la seconde moitié, rugueux à la base, finement pointillés en arrière. Dessous brun obscur. Sillons antennaires nettement limités en dedans par une carène. Saillie prosternale graduellement atténuée en arrière et terminée en pointe. Epipleures des élytres sillonées dans

toute leur longueur. Episternes parallèles aussi larges que les épipleures à la moitié de leur longueur. Hanches postérieures largement dilatées en dedans. Pattes ferrugineuses.

Longueur, 6 millimètres.

MINDANAO, Butuan.

Espèce remarquable par sa forme large et peu convexe et par les épipleures des élytres sillonées dans toute leur longueur comme chez certaines espèces américaines.

Fornax cedonulli var. bakeri var. nov.

Fornax cedonulli HELLER, Abh. Mus. Dresden (1898), 7, No. 3, 29, Pl. 3, fig. 4. Espèce décrite de Toli-Toli, Nord Celebes.

La variété *bakeri* diffère du type par les antennes entièrement jaunes, blanchâtres au sommet, le pronotum dépourvu de tache noire médiane, la base des élytres, la suture et les bords latéraux rougeâtres.

LUZON, Tayabas, Mont Banahao.

La taille est plus grande (14 millimètres) et plus large, le pronotum plus rétréci en avant, le reflet des élytres légèrement verdâtre.

Fornax vitticollis sp. nov.

Oblong, convexe, jaune clair; pubescence noire sur presque toute la surface, jaune sur l'épistome, le devant de la tête, l'extrême base du pronotum et les angles postérieurs. Tête noire au sommet, assez fortement et densément ponctuée. Epistome à ponctuation plus forte et plus serrée, rétréci à la base où il est aussi large que l'espace compris entre lui et l'oeil. Antennes cylindriques, dépassant la base du pronotum, noirâtres à la base et devenant blanchâtres au sommet; quatrième article égal au troisième. Pronotum aussi long que large à la base, graduellement rétréci en avant, brillant jaune avec une bande noire au milieu dans toute sa longueur, élargie en avant, distinctement déprimé de chaque côté de la base, couvert d'une ponctuation fine et écartée, angles postérieurs arrondis. Ecusson noir, rétréci en arrière, tronqué au sommet, convexe et pointillé. Elytres noir brillant avec un léger reflet métallique verdâtre, ornés d'une bande transversale blanchâtre avant l'extrémité, rétrécis en arrière seulement dans le tiers postérieur, sans stries, très finement et espacément pointillés, déhiscents au sommet. Propectus jaune, ponctué. Sillons antennaires assez profonds et nettement limités en dedans. Reste du dessous d'un jaune un peu rougeâtre, pubescence jaune; ponctuation très fine et ecartée sur le métasternum, plus serrée sur l'abdomen. Hanches posté-

rieures larges, anguleuses, très rétrécies en dehors. Dernier segment abdominal atténué en arrière et arrondi au sommet. Pattes rouge clair; crochets des tarses dentés.

Longueur, 9 millimètres.

LUZON, Tayabas, Mont Banahao.

Voisin de *F. cedonulli* Heller, en diffère par le sommet de la tête et la base des antennes noires, la bande du milieu du pronotum et la tache blanchâtre du sommet des élytres réduite à une bande transversale.

Balistica picipes Motschulsky.

Bull. Mosc. (1861), 1, 116, Pl. 9, fig. 7; BONVOULOIR, Ann. Soc. Ent. France (1872), 511, Pl. 29, fig. 7.

LUZON, Laguna, Mont Maquiling.

Espèce décrite de Ceylon et signalée de Nouvelle-Calédonie.[4]

Entomophthalmus fugax var. **rubripennis** var. nov.

Entomophthalmus fugax BONVOULOIR, Ann. Soc. Ent. France (1872), 520; FLEUTIAUX, Ann. Soc. Ent. Belg. (1899), 237 (pars). L'espèce a été décrite de Sarawak. Je l'ai vue de Sumatra (Musée de Gènes).

Elytres entièrement et uniformément rougeâtres.

LUZON, Laguna, Mont Maquiling.

Entomophthalmus bonvouloiri sp. nov.

Entomophthalmus fugax FLEUTIAUX, Ann. Soc. Ent. Belg. (1899), 237 (pars) (nec Bonvouloir).

Oblong, atténué en arrière; noir peu brillant, pubescence jaune assez serrée. Tête à ponctuation peu serrée; épistome plus fortement ponctué, légèrement rugueux, peu rétréci à la base, où il est plus large que l'espace compris entre lui et l'oeil. Antennes ferrugineuses dépassant la moitié du corps. Pronotum carré, rétréci seulement tout près des angles antérieurs, déprimé en arrière; ponctuation bien nette et peu serrée; angles postérieurs carénés. Elytres atténués en arrière, à ponctuation légèrement rugueuse, indistinctement striés; strie suturale seule bien marquée. Dessous de même couleur avec l'abdomen rougeâtre, nettement ponctué. Yeux faiblement entamés. Carène latérale inférieure du pronotum n'atteignant pas tout-à-fait le bord antérieur, bien marquée en arrière. Sillons juxtasuturaux antennaires du prosternum élargis en arrière, limités en dehors dans toute leur longueur par une carène. Saillie prosternale effilée en arrière des hanches antérieures, impressionnée au milieu. Episternes nuls en avant, visibles seulement en arrière et formant un triangle allongé. Hanches postérieures dilatées

[4] Fauvel., *Rev. Ent.* (1904), 120.

en dedans, leur bord externe plus large que le bord inférieur des épisternes. Pattes ferrugineuses.

Longueur, 2.5 à 3.5 millimètres.

LUZON, Laguna, Mont Maquiling.

Diffère de *E. fugax* Bonvouloir par l'épistome plus large à la base, la saillie prosternale effilée en arrière et moins fortement impressionée entre les hanches.

J'en possède un individu de Sumatra que j'ai autrefois rapporté à tort à *E. fugax* Bonvouloir.

Microrhagus bakeri sp. nov.

Oblong, convexe, légèrement attenué en arrière; brun rougeâtre, pubescence jaune. Tête convexe, densément ponctuée, très finement carénée au milieu en arrière; épistome rugueux, très rétréci à la base où il est plus étroit que l'espace compris entre lui et l'oeil. Antennes ferrugineuses, dépassant la moitié du corps chez le mâle, faiblement dentées; 2e article très petit; 3e un peu moins long que les deux suivants réunis; les autres graduellement allongés, atteignant la moitié du corps chez la femelle, à peine distinctement dentées; 2e article très petit, plus court que le 4e; 3e aussi long que les deux suivants réunis; 4e à 10e subégaux; dernier aussi long que les deux précédents réunis. Pronotum aussi long que large, subparallèle, à peine sinué sur les côtés et rétréci seulement tout-à-fait en avant, densément ponctué, plus fortement sur les côtés. Elytres atténués en arrière, rugueux, indistinctement striés. Dessous de même couleur, carène supplémentaire antérieure du pronotum courte; carène inférieure dépassant le milieu en avant. Sillons juxtasuturaux antennaires du prosternum, parallèles, lisses, limités en dehors sur toute leur longueur, moins larges à la base que l'espace compris entre leur limite et la carène latérale inférieure. Episternes étroits, parallèles. Hanches postérieures fortement dilatées en dedans, leur bord externe plus large que les épisternes. Pattes ferrugineux clair.

Longueur, ♂, 4 millimètres; ♀, 4.25.

LUZON, Laguna, Mont Maquiling.

Voisin de *M. dilutus* Bonvouloir; de forme plus attenuée en arrière, d'un brun rougeâtre.

Microrhagus magnicornis sp. nov.

Allongé, très faiblement attenué en arrière; noir mat, pubescence jaunâtre. Tête convexe, très densément ponctuée; épistome ponctué comme la tête, rétréci à la base où il est à peu près aussi large que l'espace compris entre lui et l'oeil. Antennes

presque aussi longues que le corps, noires, pubescentes, articles 4e à 7e distinctement dentés; les suivants beaucoup moins. Pronotum aussi long que large, indistinctement rétréci en avant, brusquement arrondi près des angles antérieurs, fortement et rugueusement ponctué. Elytres atténués en arrière, rugueux, indistinctement striés. Dessous de même couleur. Saillie prosternale ferrugineuse. Carène supplémentaire antérieure du pronotum courte; carène inférieure atteignant le bord antérieur. Sillons juxtasuturaux antennaires du prosternum subparallèles, limités en dehors sur toute leur longueur, un peu moins larges à la base que l'espace qui les sépare de la carène latérale. Episternes étroits, subparallèles. Hanches postérieures dilatées en dedans, leur bord externe plus large que les épisternes. Cuisses brunâtres, tibias plus clairs; tarses jaunes.

Longueur, 3.5 millimètres.

LUZON, Laguna, Mont Maquiling.

Voisin de *M. minimus* Bonvouloir, mais noir; fortement et rugueusement ponctué. Diffère de *M. bakeri* Fleutiaux par la couleur noire, la forme générale plus étroite, le pronotum fortement rugueux.

Nematodes incertus Bonvouloir.

Ann. Soc. Ent. France (1875), 674, Pl. 32, fig. 6; FLEUTIAUX, Ann. Mus. Civ. Genova (1896), 537.

PALAWAN, Puerto Princesa.

La patrie du type est inconnue; je l'ai vu de Birmanie (Musée de Gènes).

Xylobius philippinus sp. nov.

Allongé, subparallèle, convexe, noir assez brillant; pubescence jaune très rare et courte. Tête convexe densément ponctuée, carénée au milieu jusque sur la base de l'épistome. Ce dernier très rétréci à la base qui est à peu près aussi large que l'espace compris entre elle et l'oeil. Antennes longues, dépassant la moitié du corps robustes, noires, opaques, pubescentes, dentées du quatrième au dixième articles. Pronotum aussi long que large, faiblement rétréci tout-à-fait au sommet, sillonné au milieu, densément ponctué. Elytres à ponctuation fine et ecartée, légèrement striés. Dessous noir finement ponctué. Pattes plus ou moins rougeâtres.

Longueur, 4.5 millimètres.

NEGROS, les montagnes Cuernos.

Plus étroit que *X. orientalis* Fleutiaux, plus brillant, moins rugueux.

BEITRÄGE ZUR KENNTNIS DER GATTUNG LOBOSCELIDIA WESTWOOD (HYMENOPTERA)

VON J. J. KIEFFER

(*Bitsch, Germany*)

Die Gattung *Loboscelidia* wurde von Westwood[1] aufgestellt und später von Dalla-Torre in *Loboscelidiodea* umgetauft.[2] Westwood war der Ansicht, dass sie zweifelhaft zu den Diapriiden oder zu den Cynipiden zu stellen sei; Dalla-Torre hat sie deshalb zu den Diapriiden, Ashmead dagegen zu den Cynipiden, gestellt. Die Type, *L. rufescens* Westw., von der nur das Weibchen bekannt ist, stammt aus den Sulu Inseln und wurde, seit Westwood, nicht wieder beobachtet. Es gelang nun Herrn Professor Baker zwei neue Vertreter dieser Gattung und auch das Männchen in den Philippinen zu entdecken; dieselben unterscheiden sich von der Type wie folgt:

a'. Kopf fast kuglig, auf der Stirne mit einem kurzen, nach vorne gerichteten Fortsatz (nach Figur zwischen den Antennen vorstehend). L. rufescens Westw. (♀)

*a*². Kopf ohne Fortsatz auf der Stirne.

b'. Subcostalis an der Radialis nicht aufhörend, sondern schräg bis in die Nähe des Vorderrandes verlängert, fast die Mitte desselben erreichend, Medialis distal von ihrer Mitte einen sehr kurzen Ast abzweigend ..... L. inermis sp. nov. (♀)

*b*². Subcostalis an der Radialis aufhörend und das proximale Viertel des Vorderrandes kaum überragend, Medialis einfach, keinen Ast abzweigend ..... L. defecta sp. nov. (♂ ♀)

Loboscelidia inermis sp. nov.

♀: Rotbraun, glatt und glänzend. Kopf von oben gesehen quer, bis zu den Antennen allmählich bogig abfallend; von der Seite gesehen höher als lang, ventral gewölbt, dorsal stark gewölbt und mit dem vorderen Teil des Thorax, bis zum Scutellum, eine bogig gekrümmte Linie bildend. Mund auf der Ventralseite liegend, dem Hinterrande näher als dem Vorderrande. Augen kahl, fast kreisrund. Ocellen sich fast berührend, einen Bogen bildend, die lateralen um ihren Durchmesser vom Hinterrande des Kopfes entfernt, um ihren doppelten Durchmesser vom Auge entfernt. Hinter den Ocellen verlängert sich der Hinterkopf in einen länglichen, stark gewölbten, seitlich mit je

[1] Thesaurus Entomologicus Oxoniensis (1874), 171.

[2] Catalogus Hymenopterorum (1898), 5, 431.

1 schwarzen Leiste gerandeten Fortsatz, der bis zum Pronotum reicht; seitlich trägt dieser Fortsatz eine gelbliche, von vielen queren Falten durchzogene Lamelle, die sich auch am Hinterrande der Schläfe fortsetzt und so, mit dem Fortsatz selbst, einen halbkreisförmigen, halbierten Ring oder Hals bildet. Schläfe oben sehr schmal, nach unten allmählich erweitert. Wange kaum kürzer als das Auge. Stirn ohne Fortsatz zwischen den Antennen, diese sitzen auf einem stark queren, ausgerandeten Vorsprung am Vorderende des Kopfes. Mandibeln fast keglig, scharf zugespitzt. Palpen 4 gliedrig und kurz, 1. Glied viel dünner und kaum kürzer als das 2., dieses doppelt so lang wie dick, 3. kürzer als das 2., am Maxillarpalpus distal schräg abgestutzt, am Labialpalpus kaum länger als dick und nicht schräg abgestutzt, 4. so lang wie das 2. und 3. zusammen, spindelförmig, mit 2 kurzen distalen Borsten. Antennen 13 gliedrig, fadenförmig, kaum sichtbar pubesziert, Scapus etwas länger als das 2. und 3. Glied zusammen, von oben gesehen allmählich nach hinten verdickt, seitlich gesehen gleich dick und mit einer ventralen durchscheinenden Lamelle, diese durchlaufend und kaum weniger breit als der Scapus, 2. Glied fast quer, 3. walzenrund wie die folgenden, kaum länger als das 4., dieses doppelt so lang wie dick, 5.-13. allmählich verlängert, 13. mehr als dreimal so lang wie dick.

Pronotum fast quadratisch, kaum länger als breit, hinten mit einer schwachen, bogigen Querlinie, die ein queres, elliptisches Feld begrenzt. Mesonotum stark quer, fast halb so lang wie das Pronotum, mit 2 vorn kaum divergierenden, dicht vor dem Hinterrande aufhörenden Parapsidenfurchen, mittlerer Abschnitt so breit wie die seitlichen. Scutellum so lang wie das Mesonotum, dreieckig, ohne Gruben aber an jeder Vorderecke mit einer schrägen Linie, die je eine Axille bildet. Metanotum nicht halb so lang wie das Scutellum, einen schmalen Querstreifen bildend. Mediansegment vorn fast wagerecht, hinten fast senkrecht abfallend, der vordere Teil viel kürzer als der hintere, dieser nicht durch eine Leiste von der Metapleure getrennt. Mesopleure gewölbt. Propleure etwas eingedrückt.

Vorderflügel gross, kahl, unbewimpert, nur in der distalen Hälfte mit feinen Börstchen, ausgenommen medial und am Rande, Fläche stark glänzend, mit grossen braunen Flecken, deren 2 dunkler sind und am Vorderrande liegen, der quere proximale durchzieht die beiden Äste der Subcostalis; Adern dunkelbraun, plötzlich abgebrochen, Costalis fehlend, Subcostalis vom Vorderrande weit entfernt, fast die Mitte desselben erreichend, vor ihrem Distalende verzweigt sie sich, indem ein Ast schräg nach dem Vorderrande zieht und diesen fast erreicht, während ein

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anderer, fast zweimal so lang wie der vordere, schräg nach hinten gerichtet ist und die Radialis darstellt; Medialis aus dem Grunde der Subcostalis entspringend, bogenförmig und wenig proximal von der Verzweigung der Subcostalis in diese mündend, wenig hinter ihrer Mitte zweigt sie einen sehr kurzen Ast nach hinten ab; Submedialis einfach, halb so lang wie die Medialis. Hinterflügel ohne ausgebildete Ader, mit 7 Frenalhäkchen, glashell, kahl, in der distalen Hälfte zerstreut punktiert, am Hinterrande bewimpert, viel kürzer als der Vorderflügel. Mittlere und hintere Coxa sich fast berührend, alle Femora und Tibien haben ventral eine glashelle, fast durchlaufende Lamelle, die nur am verdickten Ende der Tibia, sowie am Grunde des Femur, aufhört, Sporen gekämmt, 1, 2, 2; Metatarsus so lang wie die 3 folgenden Glieder zusammen, diese länglich, fast gleich, 5. fast so lang wie das 3. und 4. zusammen, Krallen 2 spaltig.

Abdomen so lang wie der übrige Körper, viel breiter als hoch, nach vorn allmählich verschmälert, ventral sehr schwach gewölbt, Petiolus länglich und sehr dünn, 2. Tergit fast senkrecht vom Petiolus aufsteigend, nach hinten allmählich erweitert, 3. das grösste, etwas länger als das 2., fast wagerecht, hinter ihm sind nur 2 oder 3 kleine Tergite sichtbar.

Länge, 3.5 Millimeter.

MINDANAO, Butuan (*Baker*) (3 ♀).

Loboscelidia defecta sp. nov.

♂ ♀: Von voriger zu unterscheiden durch das Geäder: Die Subcostalis überragt kaum das proximale Viertel des Flügels, an der Abzweigung der Radialis hört sie auf, so dass sie nur aus 2 Abschnitten besteht und nicht aus 3, wie bei voriger Art; die bogige Medialis ist nicht verzweigt. Das ♂ hat die Antennen 13 gliedrig und gestaltet wie beim ♀, von dem es sich durch folgende Merkmale unterscheidet: am Scapus und an den Beinen ist die durchscheinende Lamelle fast fehlend und nur spurenweise angedeutet, am Halse ist sie zwar deutlich aber weniger ausgedehnt als beim ♀, das Abdomen ist am Hinterende nach unten eingekrümmt, wie bei den ♂ der Diapriiden, was für das ♀ nicht der Fall ist.

Länge, 1.8 Millimeter.

PALAWAN, Puerto Princesa (*Baker*).

NEUE STEPHANIDÆ (HYMENOPTERA) DER PHILIPPINEN

VON J. J. KIEFFER
(*Bitsch, Germany*)

Genus STEPHANUS Jurine

Vier Vertreter dieser Gattung waren von den Philippinen bekannt, nämlich: *Stephanus nigricauda* Sich., *S. sulcifrons* Schlett., *S. tarsatus* Sich. und *S. unicolor* Schlett.; diesen reiht sich folgende neue Art an.

Stephanus tinctipennis sp. nov.

♂ ♀ : Schwarz, glänzend. Kopf rot bis rotbraun, Mandibeln schwarz, Antennen schwarzbraun, Scapus rot, 2. Glied rotbraun, Gelenke der Beine rötlich. Schläfe und Wange glatt und glänzend. Scheitel hinter der Krone grob bogig quergerunzelt, hinten bis zum Hinterrand des Kopfes dicht gerade quergerunzelt, Stirn von den Antennen bis zum vorderen Zahn der Krone grob bogig quergerunzelt, die 3 vorderen Zähne der Krone stark, die 2 hinteren fast, erloschen. Auge fast um seine halbe Länge vom Hinterrande des Kopfes entfernt, dieser mit einer feinen Leiste gesäumt. Maxillarpalpus sehr lang, das Hinterende der vorderen Coxa erreichend, 5 gliedrig, 1. und 2. Glied dick und fast walzenrund, das 1. doppelt so lang wie dick, das 2. fast doppelt so lang wie das 1., die 3 Glieder hinter der Biegung sind sehr dünn und, wie das 2., mit zerstreuten, langen, ventralen Haaren, 3. länger als das 1. und 2. zusammen, 4. kürzer als das 3., beide am Distalende verdickt, 5. so lang wie das 3., aber nicht verdickt. Labialpalpus klein, 4 gliedrig, davon 3 hinter der Biegung. Antennen des ♂ 37 gliedrig, Scapus doppelt so lang wie das 2. Glied, dieses wenig länglich, 3. kaum so lang wie der Scapus, dreimal so lang wie dick, viel kürzer als das 4., die folgenden allmählich dünner, 4. bis 9. gleich lang, 10. nur mehr als halb so lang wie das 9., die folgenden allmählich kürzer; jedes Flagellumglied, mit Ausnahme des letzten, hat, wie gewöhnlich bei den Stephanidæ, am Distalende einige lange, senkrecht abstehende Haare, diese etwa so lang wie die Dicke des Gliedes; Antenne des ♀ 43 gliedrig, 17 Millimeter lang, gestaltet wie beim ♂.

Thorax viermal so lang wie hoch. Prothorax fast doppelt so lang wie das Mesonotum, grob quergestreift, hinten stark erweitert, die Tegula erreichend, Hinterrand bogig ausgeschnit-

ten, der schmale, halsartige vordere Teil fast dreimal so lang wie der hintere breite Teil. Mesonotum stark quer, mit groben queren Runzeln, diese grosse, unregelmässige Punkte bildend, 3 Punktreihen deuten die 3 Längsfurchen an. Scutellum 3 lappig, anderthalbmal so lang wie das Mesonotum, medialer Lappen glatt, glänzend, an den Rändern grob punktiert, laterale Lappen grob und dicht punktiert. Metanotum eingedrückt, einen schmalen Querstreifen bildend, grob längsgerieft. Mediansegment grob netzartig gerunzelt, so lang wie Mesonotum, Scutellum und Metanotum zusammen. Metapleure und Mesopleure netzrunzlig.

Flügel schwach gebräunt, Vorderflügel mit einem grossen, braunen Fleck, der die 2 Discoidalzellen und den proximalen Teil der Cubitalzelle deckt und von da bis zum Vorderrande reicht, distal verlängert sich dieser Fleck als langer, brauner Streifen längs der Ader, die aus der hinteren Discoidalzelle entspringt, während er sich hinten, am Distalende der hinteren Discoidalzelle, mit dem Flügelhinterrand vereinigt; Costalis fehlend, Pterostigma schwarz, sehr lang und schmal, achtmal so lang wie breit, Radialis distal von der Mitte des Pterostigma entspringend, wenig vor der Flügelspitze fast im Vorderrand aufhörend, proximaler Abschnitt etwas kürzer als der distale, Basalis fast in das Distalende der Subcostalis mündend, vordere Discoidalzelle kaum kürzer als die Cubitalzelle, rautenförmig wie diese, von der 2., distal offenen Cubitalzelle durch eine sehr kurze Ader entfernt, hintere Discoidalzelle rechteckig, mehr als dreimal so lang wie breit, aus ihrem distalen hinteren Winkel eine lange, gerade Ader absendet, die an ihrem Ende plötzlich einbiegt und den Hinterrand fast erreicht.

Hinterflügel ohne deutliche Ader, nur mit einem dem Vorderrande parallelen Längsstrich im distalen Drittel und einem schrägen, den Hinterrand erreichenden und aus dem proximalen Teil des Vorderrandes entspringenden Streifen; 4 Frenalhäkchen. Beine mit langen, zerstreuten Haaren, hintere Coxa mit groben, queren Kielen, hinteres Femur mit 2 grossen Zähnen, der 1. hinter dem proximalen Drittel, der 2. vor dem distalen Drittel, zwischen denselben befinden sich 5 bis 7 kleinere Zähnchen, ebenso 5 bis 7 zwischen dem 2. Zahn und dem Distalende des Femur, Stiel der hinteren Tibia etwas kürzer als die walzenrunde Keule, hinterer Tarsus beim ♂ 5 gliedrig, Metatarsus doppelt so lang wie die 4 folgenden Glieder zusammen, diese quer, das 4. an allen Tarsen ventral in 2 lange, nach vorn gerichtete, dicht behaarte Lappen verlängert, 5. Glied so lang wie die 3 vorhergehenden zusammen, Krallen einfach, Tarsen des ♀ gestaltet wie

beim ♂, ausgenommen dass der hintere Tarsus nur 3 gliedrig ist. Abdomen des ♂ 16 millimeter lang, ventral mit langen, zerstreuten Haaren, Petiolus fast halb so lang wie das ganze Abdomen, 7 Millimeter lang, grob quergestreift, ziemlich walzenrund, hinten kaum dicker, das übrige Abdomen fast gerade, glatt, 2. Segment trichterförmig, am Vorderende quergestreift; Abdomen des ♀ 20.5 Millimeter lang, der Petiolus wenig kürzer als die Keule, 9.5 Millimeter lang, Bohrer 37 Millimeter lang, Klappen mit grossem, gelbem, distalem Ring, dieser zweimal so lang wie das schwarze Distalende, 6 Millimeter lang.

Länge, ♂ 22 bis 26 Millimeter; ♀ 31.

PALAWAN, Puerto Princesa (*C. F. Baker*).

Stephanus tinctipennis var. rubripes var. nov.

♂ ♀ : Schwarz; Kopf, Scapus und Beine rot, Coxa, Trochantere und Femur des Hinterbeines schwarzbraun; beim ♂ sind the Beine schwarz, alle Tarsen und die 4 vorderen Tibien rotbraun. Mesothorax und Metathorax beim ♀ rotbraun angehaucht. Am braunen Fleck des Vorderflügels fehlt beim ♀ der Streifen längs der hinteren Ader.

Länge, ♂ 20 Millimeter; ♀ 25.

MINDANAO, Dapitan (*Baker*).

Stephanus tinctipennis var. atriceps var. nov.

Von der Type durch folgende Merkmale zu unterscheiden: Kopf schwarz, wie der übrige Körper, Wange und Grund der Mandibel lehmgelb, Scapus dunkel rotbraun, Beine rot, Coxæ und am Hinterbein das Femur schwarz. Scheitel von der hinteren Ocelle bis zum Hinterrande des Kopfes, lateral von den bogigen Querrunzeln, mit sehr groben Punkten. Die 4 Flügel fast gleichmässig gebräunt, hintere Discoidalzelle kaum dunkler. Gelber Ring der Klappen 3.5 Millimeter lang, nicht doppelt so lang wie das schwarze Distalende, dieses 2.8 Millimeter lang.

Länge, 20 Millimeter; Bohrer, 23; Petiolus, 6.5; Keule, 6.5.

MINDANAO, Dapitan (*Baker*).

Genus **PARASTEPHANELLUS** Enderlein

Die erste in den Philippinen beobachtete Art ist folgende:

Parastephanellus polychromus sp. nov.

♂ ♀ Schwarz; Kopf ventral beim ♀ hellbraun, beim ♂ rotbraun, Stirn von dem vorderen Zahn der Krone bis zu den Antennen und ein Querstreifen zwischen den 2 hinteren Ocellen rot, Mandibel, ausgenommen das Distalende, Wange und Schläfe oder ein Streifen längs des Hinterrandes der Augen gelb, Antennen braun bis schwarzbraun, 1. und 2. Glied beim ♀ oder

die 4 bis 6 ersten beim ♂ rot, Tarsen, ausgenommen das Endglied, braun, hinterer Metatarsus und Grund des mittleren Metatarsus weiss. Kopf glatt und glänzend. Scheitel fein quergestreift von den hinteren Ocellen bis wenig hinter den Augen. Stirn bogig quergestreift von dem vorderen Zahn bis zu den Antennen. Auge um seine zwei Drittel vom Hinterrande des Kopfes entfernt, dieser bogig ausgeschnitten und leistenartig erhöht. Antennen beim ♀ 30 gliedrig, 6 millimeter lang, 1. Glied etwas kürzer als das 3., 2. wenig länglich, 4. viel länger als das 3., kürzer als das 5., 5. bis 9. ziemlich gleich, die folgenden allmählich verkürzt, 9. doppelt so lang wie das 10., vorletztes doppelt so lang wie dick; Antenne des ♂ ebenfalls 30 gliedrig und gestaltet wie beim ♀.

Thorax drei- bis viermal so lang wie hoch, Pronotum kaum länger als das Mesonotum, fast so breit wie lang, glatt und glänzend, vorderer schmaler Teil nicht länger als der hintere. Mesonotum fast glatt, mit den 3 gewöhnlichen Längsfurchen. Scutellum länger als das Mesonotum, 3 lappig, fast glatt oder kaum merklich lederartig. Mediansegment matt, lederartig, mit groben und ziemlich dichten Punkten. Metapleure glänzend, grob und dicht punktiert, Mesopleure glänzend, fein lederartig, mit einigen zerstreuten Punkten.

Flügel glashell, kahl, Pterostigma acht- bis zehnmal so lang wie breit, linealisch, distal zugespitzt, schwarzbraun, Radialis den Vorderrand fast erreichend, distaler Abschnitt dreimal so lang wie der proximale, Cubitalzelle zweimal so lang und zweimal so breit wie die Discoidalzelle, diese rautenförmig und durch eine sehr kurze Ader von der Medialzelle getrennt, von der 2. Cubitalzelle um ihre halbe Länge getrennt, Cubitalis dem Distalende des Pterostigma gegenüber aufhörend, hintere Discoidalzelle hinten offen, distal ohne verlängerte Ader; Hinterflügel gewimpert, ohne Ader, mit Frenalhäkchen. Beine kahl, vordere Tibia pubesziert, am Hinterbein ist die Coxa fein quergestreift, so lang wie das Femur, walzenrund, Femur mit 2 Zähnen, der proximale in der Mitte, ausserdem mit kleinen Zähnchen zwischen dem Grunde und dem 1. Zahn, zwischen den beiden Zähnen sowie zwischen dem 2. Zahn und dem Distalende des Femur, Stiel der Tibia länger als die Keule, Tarsus 5 gliedrig beim ♂, 3 gliedrig beim ♀ und gestaltet wie gewöhnlich. Petiolus quergestreift, kahl wie die Keule des Abdomen, beim ♂ 3.5 Millimeter lang, Keule spindelförmig, 3 Millimeter lang, Petiolus des ♀ 3 Millimeter lang, Keule gerade, 2 Millimeter lang, Bohrer 11 Millimeter lang, Klappen einfarbig schwarzbraun.

Länge, ♂ 10.5 Millimeter; ♀ 10.

MINDANAO, Lanao, Iligan (*Baker*).

Parastephanellus polychromus var. coriacea var. nov.

♂ : Schwarz; Kopf gefärbt wie bei der Type; Antennen rot, vom 4. Gliede ab allmählich dunkler bis schwarzbraun, Ventralseite des Prothorax und die 4 vorderen Beine rotbraun, ausgenommen die mittlere Coxa, am Hinterbein ist der Grund des Femur rot, der Metatarsus schmutzigweiss, die 4 folgenden Glieder rostfarbig. Die 3 Endglieder des Maxillarpalpus allmählich kürzer. Antenne 28 gliedrig. Thorax dorsal fein lederartig, Mediansegment seitlich mit Spuren von sehr seichten Punkten. Pterostigma nur fünf- bis sechsmal so lang wie breit, nicht zugespitzt. Hinteres Femur ohne Zähnchen zwischen dem Proximalende und dem 1. Zahn. Petiolus 3 Millimeter lang. Keule des Abdomen 2 Millimeter lang.

Länge, 8.5 Millimeter.

PALAWAN, Puerto Princesa (*Baker*).

Genus **DIASTEPHANUS** Enderlein

Für die Philippinen war *D. pallescens* Schlett. bekannt; die 3 folgenden Arten sind noch hinzuzufügen:

a'. Hinteres Femur mit 2 grossen Zähnen und mehreren kleinen, Pterostigma braun ..... **D. albidens sp. nov.**

a'. Hinteres Femur mit 3 grossen Zähnen, ohne kleinere Zähnchen, Pterostigma blassgelb.

b'. Kopf rotbraun, zum Teil gelb, Basalis kaum länger als ihr Abstand vom Pterostigma..... **D. flavifrons sp. nov.**

b'. Kopf schwarz, zum Teil weiss, Basalis zweimal so lang wie ihr Abstand vom Pterostigma..... **D. leucostictus sp. nov.**

Diastephanus albidens sp. nov.

♀ : Schwarz; Kopf rot, ventral und auf den Wangen heller, die 4 vorderen Glieder der Antennen rot, die folgenden allmählich dunkler, die 4 vorderen Beine rot, Dorsalseite des Femur und die 2 distalen Glieder des Tarsus schwarzbraun, Metatarsus an allen Beinen weisslich, Hypopygium und je ein lateraler, kreisrunder Fleck auf dem 3. Tergit gelb. Kopf glatt und glänzend, vom Hinterrand bis zu den Ocellen quergerunzelt. Stirn mit queren, bogigen Streifen. Auge fast viermal so lang wie sein Abstand vom Hinterrand des Kopfes, dieser durch eine Leiste gerandet. Vorderer Zahn der Krone viel kleiner als die übrigen. Antennen 30 gliedrig, 3. Glied kaum länger als das 2., 4. fast doppelt so lang wie das 3., deutlich kürzer als das 5., 5. bis 9. ziemlich gleich.

Prothorax sehr lang, vorderer halsartiger Teil viermal so lang wie der breite hintere, sehr fein quergestreift. Mesonotum ein Viertel so lang wie das Pronotum, glatt in der vorderen Hälfte, runzlig in der hinteren, mit den 3 gewöhnlichen Längsfurchen.

Scutellum fast glatt, mit einigen zerstreuten Punkten. Mediansegment mit dichten und sehr groben Punkten, von einer medialen Längsfurche durchzogen, längs dieser Furche unpunktiert. Metapleure netzartig gerunzelt, Mesopleure sehr fein punktiert, oben glatt.

Flügel glashell und kahl, Adern schwarz, Pterostigma braun mit schwarzen Rändern, linealisch, anderthalbmal so lang wie die Basalis, Radialis aus dem distalen Fünftel des Pterostigma entspringend, winklig, distaler Teil um die Hälfte länger als der proximale, um zwei Drittel seiner Länge von der Flügelspitze entfernt, Basalis schräg, in das Distalende der Subcostalis mündend, zwei und einhalbmal so lang wie der Nervulus; Hinterflügel ohne Ader, mit 3 Frenalhäkchen. Hintere Coxa dicht quergestreift, hinteres Femur mit 2 weissen, glänzenden Zähnen, proximaler Zahn distal vom 1. Drittel des Femur, der distale hinter dem 2. Drittel, zwischen beiden Zähnen befinden sich 3 sehr kleine Zähnchen, hinter dem distalen Zahn liegt 1 kleines Zähnchen, hintere Tibia länger als das Femur, Stiel länger als die Keule, Tarsus 3 gliedrig, gestaltet wie gewöhnlich. Petiolus quergestreift, 2.5 Millimeter lang, Keule des Abdomen allmählich verdickt, 3.5 Millimeter lang, Bohrer 9 Millimeter lang, Klappen mit einem grossen, gelblichweissen Ring wenig vor dem Hinterende.

Länge, 11 Millimeter.

LUZON, Laguna, Mount Maquiling (*Baker*).

Diastephanus flavifrons sp. nov.

♂ : Schwarz; Kopf rotbraun, von den Ocellen bis zum Munde und auf den Wangen gelb wie die Palpen, die 4 proximalen Glieder der Antennen rötlichgelb, die 4 vorderen Beine lehmgelb, Hinterbein schwarzbraun, 1. und 2. Tarsenglied weiss, Abdomen schwarzbraun bis schwarz, mit je einem dunkelroten lateralen Fleck auf dem 2., und oftmals noch auf dem 3., Tergit, die grossen Genitalien bräunlich. Kopf matt und lederartig, Stirn kaum quergestreift, Schläfe glatt und glänzend. Scapus kaum länger als das 2. Glied, dieses anderthalbmal so lang wie dick, 3. so lang wie der Scapus, kürzer als das 4., 5. bis 9. etwa gleich lang. Prothorax lang, vorderer Teil doppelt so lang wie der hintere, sehr fein und wenig deutlich quergestreift.

Thorax dorsal fast glatt, glänzend. Mesonotum halb so lang wie der Prothorax, nur die mediale Längsfurche deutlich. Scutellum mit grossem Mittellappen. Mediansegment matt, lederartig, mit Spuren von grossen, sehr seichten Punkten.

Flügel glashell oder weisslich, Pterostigma sehr blassgelblich, mit dunkleren Rändern, sechsmal so lang wie breit, Radialis aus dem distalen Drittel des Pterostigma entspringend, stark winklig, distaler Teil zwei und einhalbmal so lang wie der proximale, Basalis fast um ihre Länge vom Pterostigma entfernt, alle Adern gelb. Hintere Coxa sehr fein quergestreift, hinteres Femur mit 3 weissen glänzenden Zähnen, diese gleichweit voneinander entfernt; weisse, dicke Borsten, so lang wie die Zähne, sind zu 4 gereiht zwischen dem 2. und dem 3. Zahn, zu 5 zwischen dem 3. Zahn und dem Distalende des Femur, Stiel der Tibia deutlich kürzer als die Keule, Tarsus 5 gliedrig. Petiolus deutlich kürzer als die Keule des Abdomen, sehr fein quergestreift, Keule fast gerade, im letzten Viertel kaum bogig, allmählich verdickt.

Länge, 6 Millimeter (2 ♂).

LUZON, Laguna, Los Baños (*Baker*).

Diastephanus leucostictus sp. nov.

♂ ♀: Schwarz; eine breite Querbinde am Vorderrande der Stirne, Gesicht, Mandibeln, ausgenommen die Spitze, Wange und breiter Streifen auf der Schläfe weiss, die 4 proximalen Glieder der Antennen dunkel rotbraun, die 4 vorderen Beine rotbraun, Dorsalseite des Femur schwarzbraun, die 3 proximalen Glieder des hinteren Tarsus rostfarbig, 2. Tergit hinter der Mitte, mit je 1 weissen Fleck, Genitalien des ♂ rostfarbig. Kopf grob lederartig, mit groben Querrunzeln zwischen den 2 hinteren Ocellen, Gesicht, Wange und Schläfe glatt. Palpen weiss, die 3 Endglieder rostfarbig und allmählich verkürzt. Scapus kaum doppelt so lang wie das 2. Glied, 3. Glied kaum länger als das 2., 4. wenigstens um die Hälfte länger als das 3. Thorax wie bei voriger Art, Mesonotum aber mit den 3 Furchen deutlich.

Flügel wie bei voriger Art, Radialis aber aus dem distalen Fünftel des Pterostigma entspringend, Basalis doppelt so lang wie ihr Abstand vom Pterostigma. Hinterbein wie bei voriger, zwischen dem 2. und dem 3. Zahn stehen aber 5 gereihte Borsten, und 6 zwischen dem 3. Zahn und dem Distalende des Femur. Petiolus fein quergestreift, deutlich kürzer als die Keule des Abdomen, diese beim ♂ allmählich verdickt, gerade, am Hinterende schwach bogig, Keule des ♀ kaum länger als der Petiolus, Abdomen mit Petiolus, 3.5 Millimeter lang; Bohrer, 4.5 Millimeter lang; Klappe einfarbig schwarzbraun bis schwarz.

Länge, ♂ 6 Millimeter; ♀ 6.5.

LUZON, Laguna, Los Baños (*Baker*).

Genus FOENATOPUS Smith

Die Art, worauf Smith die Gattung *Foenatopus* gegründet hat, nämlich *F. ruficeps* Smith, ist identisch mit *F. indicus* Westw. und wurde in den Philippinen beobachtet. Als zweite philippinische Art kommt folgende:

Foenatopus atripes sp. nov.

♀ : Schwarz; Stirn rot von den 3 vorderen Zähnen ab, bis zu den Antennen, Oberlippe, Grund der Mandibeln, Wange, Schläfe und Ventralseite des Kopfes bräunlichgelb, Antennen schwarzbraun, 1. und 2. Glied rot, Palpen blass, Beine einfarbig schwarz. Kopf glatt, glänzend. Stirn mit bogigen Querrunzeln. Scheitel bis zum Hinterrande des Kopfes fein quergerunzelt, zwischen den hinteren Ocellen grob quergerunzelt. Auge um etwas mehr als sein Drittel vom Hinterrande des Kopfes entfernt. Die 3 vorderen Zähne der Krone gross. Maxillarpalpus 5 gliedrig, mit 3 Gliedern hinter der Biegung, diese sehr lang, allmählich verkürzt, das 3. fast so lang wie das 4. und 5. zusammen. Antennen 38 gliedrig, 3. Glied so lang wie der Scapus, 4. fast doppelt so lang wie das 3., kaum kürzer als das 5., die langen, distalen Haare nur an der Ventralseite vorhanden.

Prothorax lang, halsartiger Teil zwei- bis dreimal so lang wie dick, mehr als doppelt so lang wie der hintere, breitere glatte Teil, fein quergestreift. Mesonotum nicht halb so lang wie der Prothorax, vordere Hälfte glatt oder sehr fein lederartig, hintere Hälfte grob schräg gerunzelt, die 3 Längsfurchen nur in der hinteren Hälfte spurenweise angedeutet. Scutellum grob und zerstreut punktiert, Mitte des medialen Lappens glatt, unpunktiert. Mediansegment und Metapleure mit sehr grossen, sich fast berührenden Punkten, ebenso auch die Mesopleure unten.

Flügel glashell, nackt, mit schwarzen Adern, Pterostigma linealisch, distal zugespitzt, zweimal so lang wie die Basalis, Radialis aus dem 2. Drittel des Pterostigma entspringend, winklig, distaler Teil etwas länger als der proximale, Basalis schräg, mehr als doppelt so lang wie der Nervulus, dieser die schräge Richtung der Basalis fortsetzend; Hinterflügel ohne Ader, mit 3 Frenalhäkchen. Vordere Tibia proximal von der Mitte am dicksten, Beine kahl, hintere Coxa quergestreift, so lang wie das Femur, hinteres Femur mit 2 grossen Zähnen in der distalen Hälfte, zwischen beiden befinden sich sehr kleine Zähnchen, zwischen dem proximalen Zahn und dem Grunde des Femur liegen 3 mässig grosse Zähne, Stiel der hinteren Tibia kaum länger als die Keule, Tarsus 3 gliedrig, 4. Glied aller Tarsen von oben kaum sichtbar,

ventral mit 2 langen, nach vorn gerichteten und dicht behaarten Lappen. Petiolus des Abdomen 5 Millimeter lang, kahl und quergestreift, Keule 6 Millimeter lang, dorsal gewölbt, ventral gerade, am Vorderende quergestreift, Bohrer 19 Millimeter lang, Klappen schwarz, mit einem grossen, gelblichweissen Ring vor dem Distalende.

Länge, 16.5 Millimeter.

PALAWAN, Puerto Princesa (*Baker*).

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ERRATA

Page 280, line 17, for **Eucoilia** read **Eucoila.**
Page 292, line 1, for **Pausinæ** read **Paussinæ.**
Page 293, line 12 from the bottom, for **benquetia** read **benguetia.**
Page 319, last line, for ♀ read ♂.

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